CONTRACT AMENDMENT NO. 2

Original Contract Number 201500002126

1. PARTIES

This Amendment to the above-referenced Original Contract (hereinafter called the "Contract") is entered into by and between Truven Health Analytics, Inc., 100 Phoenix Dr., Ann Arbor, Michigan, 48108, (hereinafter called "Contractor"), and the STATE OF COLORADO, acting by and through the Department of Health Care Policy and Financing, 1570 Grant Street, Denver, Colorado 80203 (hereinafter called "Department" or "State.")

2. EFFECTIVE DATE AND ENFORCEABILITY

This Amendment shall not be effective or enforceable until it is approved and signed by the Colorado State Controller or designee (hereinafter called the "Effective Date.") The Department shall not be liable to pay or reimburse Contractor for any performance hereunder, including, but not limited to, costs or expenses incurred, or be bound by any provision hereof prior to the Effective Date.

3. FACTUAL RECITALS

The Parties entered into the Contract to develop and install the Business Intelligence and Data Management System (BIDM). The purpose of this Amendment is to update payments to Contractor, update RSD, DSD, and plan requirements, and update Exhibit C to clarify stages in which contract requirements are due.

4. CONSIDERATION

The Parties acknowledge that the mutual promises and covenants contained herein and other good and valuable consideration are sufficient and adequate to support this Amendment.

5. LIMITS OF EFFECT

This Amendment is incorporated by reference into the Contract, and the Contract and all prior amendments thereto, if any, remain in full force and effect except as specifically modified herein.

6. MODIFICATIONS

The Contract and all prior amendments thereto, if any, are modified as follows:

A.   Section 4, Contract Personnel, Subsections 4.2 and 4.2.1 are hereby deleted in their entireties and replaced with the following:

4.2.   During SFY 2017, specifically November 1, 2016 through June 30, 2017, the Contractor shall provide sufficient Non-Key Personnel FTEs, assigned exclusively to this Contract, to provide fourteen thousand, one hundred and ninety-six (14,196) hours for SFY 2017 of Analytics staff, Operations staff and System/Interface staff under this Contract during the Ongoing Operation and Enhancement Contract Stage. Throughout SFY 2018, June 30, 2017, through June 30, 2018, the Contractor shall provide sufficient Non-Key Personnel FTEs, assigned exclusively to this Contract, to provide thirty-five thousand, one hundred (35,100) hours for SFY 2018 of Analytics staff, Operations staff and System/Interface staff under this Contract during the Ongoing Operation and Enhancement Contract Stage.

Beginning SFY 2019, June 30, 2018, and continuing throughout the remainder of the contract, the Contractor shall provide at least eighteen (18) Non-Key Personnel FTEs, assigned exclusively to this Contract, to provide thirty-seven thousand, four-hundred and forty (37,440) hours of Analytics staff, Operations staff and System/Interface staff under this Contract on a SFY basis during the Ongoing Operation and Enhancement Contract Stage. The hours of work associated with the FTEs that the Contractor shall provide are shown in the following table, but the Contractor may adjust the hours between types of FTEs as approved by the Department.

4.2.1. Non-Key Personnel FTE Hours Table

	Analytics Staff Hours each year	Operations Staff Hours each year	System/Interface Staff Hours each year	Total Maximum Hours each year
November 1, 2016 through June 30, 2017	Allocated by FTE type as approved by the Department			14,196
SFY 2018, June 30, 2017, through June 30, 2018	Allocated by FTE type as approved by the Department			35,100
SFY 2019, June 30, 2018, throughout the remainder of the contract	16,640	10,400	10,400	37,440

B.   Section 7, Payments to Contractor, Subsection A, Maximum Amount, is hereby deleted in its entirety and replaced with the following:

A.   Maximum Amount

The maximum amount payable under this Contract to Contractor by the State is shown in the following table, as determined by the State from available funds. Payments to Contractor are limited to the unpaid obligated balance of the Contract at the rates set forth in **Exhibit E,** Compensation and Quality Maintenance Payments. The maximum amount payable by the State to Contractor is:

State Fiscal Year 2014-15	$2,162,500.00
State Fiscal Year 2015-16	$9,860,250.20
State Fiscal Year 2016-17	$7,162,422.17
State Fiscal Year 2017-18	$20,483,078.27
State Fiscal Year 2018-19	$11,782,750.20
State Fiscal Year 2019-20	$11,782,750.20
State Fiscal Year 2020-21	$11,782,750.20
State Fiscal Year 2021-22	$11,782,750.20
Total for All State Fiscal Years	**$86,799,251.44**

The maximum amount payable by the State to Contractor for Exhibit C, Section 46 is:

State Fiscal Year 2015-16	$160,000.00
State Fiscal Year 2016-17	$306,082.00
State Fiscal Year 2017-18	$270,080.00
State Fiscal Year 2018-19	$75,000.00
Total for All State Fiscal Years of Project	**$811,162.00**

The State Fiscal Year amounts in the table in this section are based on State appropriations. Based on the timing of the invoicing and payment, the Contractor may receive amounts paid in a different State Fiscal Year than when the amounts were actually earned by the Contractor.

Any changes to the maximum amount payable under the Contract or Quality Maintenance Payments Specified in Exhibit E, shall require a formal written amendment, in accordance with State Fiscal Rules and State Controller Policies and Guidelines.

C.   Section 16, Notices and representatives, is hereby deleted in its entirety and replaced with the following:

16.   NOTICES AND REPRESENTATIVES

Each individual identified below is the principal representative of the designating Party. Unless otherwise required by a specific provision of this Contract, all notices required to be given hereunder shall be hand delivered with receipt required or sent by certified or registered mail to such Party's principal representative at the address set forth below. In addition to, but not in lieu of, a hard-copy notice, notice also may be sent by e-mail to the e-mail addresses, if any, set forth below. Either Party may from time to time designate by written notice substitute addresses or persons to whom such notices shall be sent. Unless otherwise provided herein, all notices shall be effective upon receipt.

For the State: Parrish Steinbrecher, Provider Payment Division Director
Department of Health Care Policy and Financing
1570 Grant Street
Denver, Colorado 80203
Parrish.Steinbrecher@state.co.us

For Contractor: Helen Orme, Contracts Administrator
Truven Health Analytics Inc.
100 Phoenix Drive
Ann Arbor, Michigan 48108
Helen.Orme@truvenhealth.com

D.   Exhibit C, Requirements, is hereby deleted in its entirety and replaced with Exhibit C, Requirements - Amendment 2, attached hereto and incorporated by reference into the Contract. All References within the Contract to Exhibit C shall be deemed to reference to Exhibit C, Requirements - Amendment 2.

E.   Exhibit D, Project Phase Document, Initiation and Planning Phase description, is hereby deleted in its entirety and replaced with the following:

Initiation and Planning Phase: The Initiation and Planning Phase includes the Department's and Contractor's initial project planning and set up activities. This includes activities to promote project planning, bi-directional knowledge transfer, improving the Contractor's understanding of the Colorado Medical Assistance Program via familiarization activities, communication, and team-building activities to develop a collaborative working relationship between the Department and Contractor. The Contractor shall work with the Department to establish key project planning documents and Deliverables, including the, Work Breakdown Schedule, Risk and Issue Management Plan, Communication Management Plan, and Resource Management Plan as detailed in Exhibit C, Requirement. The duration of this Project Phase will depend on the complexity of the Contract Stage to which it applies.
Entrance Criteria: • The Effective Date of the Contract   • State and federal authorities have approved the Contract.
Exit Criteria: • Completion of the Project Kick-Off Meeting.   • Department approval of all Initiation and Planning Deliverables.

F.   Exhibit D, Project Phase Document, Initiation and Planning Phase, Requirement #7, is hereby deleted in its entirety and replaced with the following:

#	Contractor Responsibilities	Department Responsibilities
7.	Develop a Risk and Issue Management Plan.	Collaborate with the Contractor in order to review and approve the Risk and Issue Management Plan.

G.   Exhibit D, Project Phase Document, Design and Definition Phase, Requirement #38, is hereby deleted in its entirety and replaced with the following:

#	Contractor Responsibilities	Department Responsibilities
38.	Use project control tools to formally track session results and allow the Contractor/Department to manage the design decisions by module or functional area. The tool should also provide visibility to outstanding decisions, as well as decisions resulting from completed DSD Sessions. This function shall be fulfilled by the System Operations and Maintenance Plan.	• Track policy-related changes and training impacts identified during the detailed design and definition sessions. • Review and respond to all DSD requirements change documents, using the agreed-upon project Change Management Process.

H.   Exhibit D, Project Phase Document, Development Phase, Requirement #45, is hereby deleted in its entirety and replaced with the following:

#	Contractor Responsibilities	Department Responsibilities
45.	Ensure that the Configuration Management Plan identifies the tools to be used to manage changes to the BIDM components and modules.	• Review, provide feedback, and approve the Configuration Management Plan.

I.   Exhibit D, Project Phase Document, Testing Phase, Requirement #80, is hereby deleted in its entirety and replaced with the following:

#	Contractor Responsibilities	• Department Responsibilities
80.	Perform regression testing, which shall be part of the System Test Plan, for all defects identified as directed by the Department.	• Assist the Contractor with regression testing and identify defects. • Review Regression Testing Results.

J.   Exhibit D, Project Phase Document, Organizational Readiness and Training Phase, Requirement #83 is hereby deleted in its entirety and replaced with the following:

#	Contractor Responsibilities	Department Responsibilities
83.	Submit for Department approval a Training Plan that meets the requirements in Exhibit C, Requirements.	Provide feedback on the proposed Training Plan, approach, and training materials prior to training sessions occurring or materials being released.

K.   Exhibit D, Project Phase Document, Operations Transition Planning, Requirement #147, is hereby deleted in its entirety and replaced with the following:

#	Contractor Responsibilities	Department Responsibilities
147.	Develop and submit a Relocation Risk/Contingency Plan within the Business Continuity and Disaster Recovery Plan.	Collaborate with the Contractor in order to review and approve the Relocation Risk/Contingency Plan, which shall be fulfilled within the Business Continuity and Disaster Recovery Plan.

L.   Exhibit E, Compensation and Quality Maintenance Payments, is hereby deleted in its entirety and replaced with Exhibit E, Compensation and Quality Maintenance Payments – Amendment

2, attached hereto and incorporated by reference into the Contract. All references within the Contract to Exhibit E shall be deemed to reference to Exhibit E, Compensation and Quality Maintenance Payments – Amendment 2.

7.   START DATE

This Amendment shall take effect on its Effective Date.

8.   ORDER OF PRECEDENCE

Except for the Special Provisions and the HIPAA Business Associates Addendum, in the event of any conflict, inconsistency, variance, or contradiction between the provisions of this Amendment and any of the provisions of the Contract, the provisions of this Amendment shall in all respects supersede, govern, and control. The most recent version of the Special Provisions incorporated into the Contract or any amendment shall always control other provisions in the Contract or any amendments.

9.   AVAILABLE FUNDS

Financial obligations of the state payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, or otherwise made available to the Department by the federal government, state government and/or grantor.

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THE PARTIES HERETO HAVE EXECUTED THIS AMENDMENT

Persons signing for Contractor hereby swear and affirm that they are authorized to act on Contractor's behalf and acknowledge that the State is relying on their representations to that effect.

CONTRACTOR:	**STATE OF COLORADO:**
Truven Health Analytics, Inc.	John W. Hickenlooper, Governor

By: _____
Signature of Authorized Officer

By: _____
Susan E. Birch, MBA, BSN, RN
Executive Director
Department of Health Care Policy and Financing

Date: _____8-29-16_____

Date: _____8/30/16_____

_____
Printed Name of Authorized Officer

LEGAL REVIEW:
Cynthia H. Coffman, Attorney General

Patrick J. Coppens
VP Finance

By: _____NA_____

_____
Printed Title of Authorized Officer

Date: _____

ALL CONTRACTS REQUIRE APPROVAL BY THE STATE CONTROLLER

CRS §24-30-202 requires the State Controller to approve all State Contracts. This Contract is not valid until signed and dated below by the State Controller or delegate. Contractor is not authorized to begin performance until such time. If Contractor begins performing prior thereto, the State of Colorado is not obligated to pay Contractor for such performance or for any goods and/or services provided hereunder.

STATE CONTROLLER:
Robert Jaros, CPA, MBA, JD

By: _____
Department of Health Care Policy and Financing

Date: _____9/7/16_____

EXHIBIT C, REQUIREMENTS – AMENDMENT 2

1. CONTRACTOR RELATIONSHIP EXPECTATIONS

1.1.   Reference #3003:   The use of Subcontractors shall be clearly explained in the Resource Management Plan, and any Subcontractor shall be identified by the organization's name.

1.1.1.   At a minimum, the Subcontractor information shall include the following for each Subcontractor:

1.1.1.1.   Name.

1.1.1.2.   Address.

1.1.1.3.   The general scope of work to be performed by each Subcontractor.

1.1.1.4.   Subcontractor's willingness to perform such work.

1.1.1.5.   Certification that the Subcontractor does not discriminate in its employment practices.

1.1.2.   The Contractor shall report to the Department annually any information on its use of Subcontractors, certifying that the Subcontractor meets the employment practices mandated by federal and State of Colorado statutes and regulations. Subcontractors are subject to the same location requirements as the Contractor.

1.1.2.1.   In the event that the Contractor hires a new subcontractor within the annual time frame, the Contractor shall notify the Department within three (3) business days.

1.1.3.   Contractor Approach: Contractor shall clearly explain the use of Subcontractors in the Resource Management Plan, and any Subcontractor shall be identified by the organization's name. Other information shall include address, general scope of work to be performed by Subcontractor, Subcontractor's willingness to perform assigned work, and certification that Subcontractor does not discriminate in its employment practices.

1.1.4.   Contractor shall report to the Department annually any information on its use of Subcontractors, certifying that the Subcontractor meets the employment practices mandated by federal and State of Colorado statutes and regulations. Subcontractors shall be subject to the same location requirements as the Contractor.

1.1.5.   Requirement Stage: BIDM Implementation Contract Stage II

1.2.   Reference #3004: The Contractor shall manage and be accountable for the actions, inactions, and performance of all Subcontractors. The Contractor is solely responsible for the Work performed under this Contract including the work of Subcontractors. The Contractor is the Department's single point of contact for all services to be performed under this Contract including services performed by Subcontractors.

1.2.1.   The Contractor shall allow the Department to communicate directly with all Subcontractors that are associated with the Contract at the Department's request.

1.2.2.   Contractor Approach: Contractor shall be accountable for the performance of all Subcontractors, be responsible for the work of Subcontractors, and be the Department's single point of contact for all services to be performed under this Contract. The Contractor shall allow the Department to communicate directly with all Subcontractors that are associated with the Contract at the Department's request provided that the Department inform Contractor of the Subcontractor discussions.

1.2.3.   Requirement Stage: BIDM Implementation Contract Stage II

1.3.   Reference #3005: If any role is subcontracted, the Contractor shall be the prime Contractor and shall be solely responsible for integration of all Work to be performed under this Contract. The prime Contractor shall work solely with the Department to perform all Contract administration activities of this Contract, including tasks for which the Subcontractor may be responsible.

1.3.1.   Contractor Approach: Contractor shall be the prime Contractor and shall be solely responsible for integration of all Work to be performed under this Contract. The prime Contractor shall work solely with the Department to perform all Contract administration activities of this Contract, including tasks for which a Subcontractor may be responsible.

1.3.2.   Requirement Stage: BIDM Implementation Contract Stage II

1.4.   Reference #3006: The Contractor shall ensure that Contractor's staff work cooperatively with Core MMIS contractor and PBMS contractor staff to ensure the success of the COMMIT project as it relates to BIDM. The Core MMIS Contractor shall be the System Integrator.

1.4.1.   Contractor Approach: The Contractor shall cooperate with the Core MMIS and Supporting Services Contractor and the PBMS Contractor throughout the duration of the BIDM Contract. The Contractor's personnel shall work collaboratively to achieve an open, cooperative and mutually supportive environment to help ensure the success of the COMMIT project.

1.4.1.1.   The Contractor's key responsibility shall be to ensure data synchronization between the BIDM Interface and BIDM Data Exchange partners, and the BIDM to the greatest extent possible.

1.4.1.2.   The Contractor shall not be responsible for integration of all systems related to the COMMIT project.

1.4.1.3.   In the event that the Contractor receives test or production data from BIDM Interface and BIDM Data Exchange partners in an untimely manner or in a form or containing information that is different than what was anticipated or agreed to, then the Department and the Contractor shall work together to define and resolve the impact of the receipt of this untimely, incomplete or inaccurate information.

1.4.2.   Requirement Stage: BIDM Implementation Contract Stage II

2. COMMIT PROJECT PHASES

2.1.   Reference #3007: The Contractor shall provide an integrated test environment consistent with the proposed System Development Life Cycle (SDLC) process that allows the Department and the Contractor to monitor the accuracy of the BIDM and test proposed changes to the BIDM without affecting normal operations. The test environment shall allow for end-to-end testing including transmission of all data from the original source data to the BIDM and vice versa for bi-directional interfaces.

2.1.1.   The System Test Plan shall contain detail of when environments will be provided.

2.1.2.   Contractor Approach: The Contractor shall construct environments to support BIDM testing. These environments shall allow for end-to-end testing including transmission of all data from the original source data to the BIDM and vice versa for bi-directional interfaces. The System and Integration Test environment shall be used for integrating code from the development team and verifying all functionality works according to specification before moving into a formal testing phase. The User Acceptance Test environment shall support the Department's testing of

new functionality and shall be similar to the Production environment in terms of its design although it may be a scaled-down version of the production environment. The UAT environment shall support all required UAT activities, including training, defect logging, and other issues prior to sign-off and release of all work products to production. Refer to Section 15.1.1, Reference #3199, for Contractor's approach to delivering environments for System and Integration Testing and User Acceptance Testing.

2.1.3.   Requirement Stage: BIDM Implementation Contract Stage II

2.2.   Reference #3008: The test environment(s) shall allow for the processing and analysis of data with a volume and distribution similar to that of the production system. All system and integration testing shall be performed such that the data are not overwritten by multiple testing initiatives or the refresh. Refreshing data shall be scheduled per the Department-approved Operations and Maintenance Plan and shall include the entire BIDM.

2.2.1.   Data in test environment shall accommodate at least three (3) years of Production BIDM data.

2.2.2.   Contractor Approach: The Contractor shall provide System and Integration Test and UAT test environments to support the processing and analysis of data with a volume and distribution similar to that of the production system although it may be a scaled-down version of the production environment. All system and integration testing shall be performed such that the data are not overwritten by multiple testing initiatives or the refresh. Refreshing data shall be scheduled per the approved Change Management Plan and shall include the entire BIDM. Test environment data management processes shall be defined in the approved System Test Plan and then followed accordingly. Refer to Section 15.1.1, Reference #3199 for Contractor's approach to delivering environments for System and Integration Testing and User Acceptance Testing.

2.2.3.   Requirement Stage: BIDM Implementation Contract Stage II

2.3.   Reference #3009: As improvements, changes, or Enhancements to the BIDM are implemented, that functionality shall also be deployed to test environments, so that test environments mirror production functionality.

2.3.1.   Contractor Approach: As improvements, changes, or Enhancements to the BIDM are implemented, Contractor shall deploy functionality to System and Integration Test and UAT test environments, so that these test environments mirror production functionality, although they may be scaled-down versions of the production environment. Test environment change migration processes shall be defined in the approved Configuration Management Plan and then followed accordingly. Refer to Section 15.1.1, Reference #3199, for Contractor's approach to delivering environments for System and Integration Testing and User Acceptance Testing.

2.3.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.4.   Reference #3010: The Contractor shall develop a System Test Plan that describes the Contractor's approach and commitment to all testing sub-phases required for a system of this magnitude.

2.4.1.   The System Test Plan shall include, but is not limited to, all of the following:

2.4.1.1.   System testing process.

2.4.1.2.   Integration testing.

2.4.1.3.   Data Conversion testing process.

2.4.1.4. Approach to supporting Department during UAT. The UAT process shall provide for authorized BIDM users to exercise the entire BIDM, including the use of converted data, in a separate, controlled environment.

2.4.1.5. Performance/stress testing.

2.4.1.6. Penetration testing.

2.4.1.7. The approach to conducting all specified testing for all BIDM functionality per Department entrance and exit criterion.

2.4.2. Any changes to test cases, including entrance and exit criteria, shall require written approval by the Department.

2.4.3. Contractor Approach: The Contractor shall develop a System Test Plan that describes the Contractor's approach and commitment to all testing sub-phases required for a system of this magnitude. During the Testing Phase, the Contractor shall develop a Master Test Plan and subsequent Release Test Plans. The Master Test Plan shall be a static document that describes the high-level details of the project's test effort while Release Test Plans shall be dynamic and shall contain release-specific test procedures. This deliverable shall be developed, reviewed and approved in accordance with procedures detailed within the approved Communications Management Plan.

2.4.4. Deliverable: System Test Plan

2.4.5. Deliverable Stage: BIDM Implementation Contract Stage II

2.5. Reference #3011: The System Test Plan shall also describe the Contractor's approach and commitment to all other testing of sub-phases required for a system of this magnitude.

2.5.1. The System Test Plan shall also include, but is not limited to, all of the following:

2.5.1.1. Roles and responsibilities throughout the Testing Phase.

2.5.1.2. Process for submitting, monitoring, and resolving Defects found during testing and Enhancements and assigning severities/priorities in accordance to Department standards.

2.5.1.3. Process for applying fixes to the BIDM and regression testing of any fixes.

2.5.1.4. Assurance of parity between technical environments.

2.5.1.5. Description of the proposed system or tool for identifying, prioritizing, tracking, fixing, and re-testing System Defects or Enhancements.

2.5.1.6. Structured promotion of functionality to subsequent testing levels.

2.5.1.7. Summary of testing tools used throughout the Testing Phase, including the approach to defining test cases that are representative of actual cases.

2.5.1.8. Testing of recovery processes and/or component outages/failures.

2.5.1.9. Defined exit criteria that provides for open defect parameters (number or acceptable open defects by severity, remediation plan following exit of test).

2.5.2. Contractor Approach: The Contractor shall develop a System Test Plan that describes the approach and commitment to all other testing sub-phases. During the Testing Phase, the Contractor shall develop a Master Test Plan and subsequent Release Test Plans. The Master Test Plan shall be a static document that describes the high-level details of the project's test effort while Release Test Plans shall be dynamic and shall contain release-specific test procedures.

This deliverable shall be developed, reviewed and approved in accordance with procedures detailed within the approved Communication Management Plan.

2.5.3.   Deliverable: System Test Plan

2.5.4.   Deliverable Stage: BIDM Implementation Contract Stage II

2.6.   Reference #3012: The Contractor shall complete all testing, modifications, and documentation referred to in the System Test Plan.

2.6.1.   Contractor Approach: The Contractor shall execute the testing activities formalized within the Master and Release Test Plans. Within the various test stages and iterations, the Contractor shall conduct test methods to ensure configured components reflect design and function accurately. The status of testing activities shall be documented, maintained and reported using the test management system.

2.6.1.1.   Data Management Testing: The Contractor shall conduct tests to ensure full and complete testing of data and data processing functions. The Contractor shall perform tests using a series of system "builds" that subject processes and components to a series of pre-defined tests.

2.6.1.2.   Analytical Testing: The Contractor shall perform analytic testing to validate the usability of the data within the data warehouse and associated data marts. Analytically usability shall be measured in terms of conformance to external standards or internal consistency.

2.6.1.3.   Defect Tracking: When a defect is detected or a failure is observed, data shall be gathered and recorded in the test management system for tracking, reporting and resolution management.

2.6.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.7.   Reference #3013: The Contractor shall design, implement, and document detailed test cases for each sub-phase of testing identified in the System Test Plan. Test cases shall include identifications, detailed steps, expected results, actual results (where appropriate), and be traceable to requirements listed in this Contract in the Requirements Traceability Matrix (RTM).

2.7.1.   Contractor Approach: The Contractor shall design, implement, and document detailed test cases for each sub-phase of testing. Test cases shall include identifications, steps, expected results and be traceable to requirements in the RTM. The Contractor shall subject test cases to internal quality reviews before submitting them to the Department for review and approval.

2.7.2.   Deliverable: Detailed test cases

2.7.3.   Deliverable Stage: BIDM Implementation Contract Stage II

2.8.   Reference #3014: The Contractor shall schedule the testing environments and provide environment and sub-environment setup and test data as needed to support all testing per Department defined priorities.

2.8.1.   Contractor Approach: The Contractor shall maintain and support testing environments. This shall include support for scheduling data management activities, provide test data and execute the processing of test data. Test environment management processes shall be defined in the approved System Test Plan and then followed accordingly.

2.8.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.9.   Reference #3015: The Contractor shall operate the integrated test environment component of the BIDM, including improvements/enhancements as implemented.

2.9.1.   Contractor Approach: The Contractor shall operate, improve and enhance testing environments, as appropriate and approved by the Department. Test environment change processes shall be defined in the approved Configuration Management Plan and then followed accordingly.

2.9.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.10.   Reference #3016: The Contractor shall submit all Test Results, including Performance/Stress Testing Results, Final System Test Results, and Penetration Test Results, for each test sub-phase to the Department.

2.10.1.   The Test Results shall include, at a minimum, all of the following:

2.10.1.1.   Summary of testing results

2.10.1.2.   Pass/Failure Rate at granular level as specified in the System Test Plan

2.10.1.3.   Defect IDs and severity level of failed test cases

2.10.1.4.   Proposed resolution for identified Defects.

2.10.2.   Contractor Approach: The Contractor shall provide the Department with test results through its test management system. The Contractor shall manage all system, performance, stress, operational readiness and UAT tests within the test management system and will record results there. Throughout DDI testing periods, the Contractor shall provide the Department with frequent summaries and metrics on testing progress. The Department shall also be able to view detailed information on test execution and results within the test management system at any time.

2.10.3.   Deliverable: Test Results

2.10.4.   Deliverable Stage: BIDM Implementation Contract Stage II

2.11.   Reference #3017: The Contractor shall perform regression testing for all Defects identified as directed by the Department and provide regression testing results.

2.11.1.   Contractor Approach: The Contractor's regression testing shall focus on testing the functionality of existing and tested software to verify the new changes delivered into the system do not negatively impact the functionality of earlier releases. During system integration testing, the Contractor shall perform regression testing with each new release that encompasses and/or affects previously released functions and new enhancements.

2.11.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.12.   Reference #3018: The Contractor shall use results of testing activities and lessons learned in the SDLC process to reduce the occurrence of Defects in future artifacts and processes (continuous improvement).

2.12.1.   Contractor Approach: The Contractor shall perform continuous improvement practices, as defined in its Quality Assurance Control/Quality Management Plan (QA Plan). The Contractor shall evaluate test results, continually monitor quality and regularly audit its overall operation to ensure accuracy and completeness throughout the life cycle of the project. The Contractor shall use the results of testing activities and lessons learned to reduce the occurrence of defects in future artifacts and processes. Continuous Improvement methods shall be defined and executed in accordance with the processes defined within the approved QA Plan.

2.12.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.13.   Reference #3019: The Contractor shall support the Department in all testing activities by providing support staff, technical expertise, and the tools required to track activities, outcomes, and test results.

2.13.1.   Contractor Approach: The Contractor shall provide support staff, technical expertise, and the tools required to support the Department in all testing activities. Support staff shall schedule, track and manage testing activities, record and evaluate outcomes using the test management system and provide results and metrics.

2.13.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.14.   Reference #3020: The test environment(s) shall allow simultaneous testing of BIDM changes, reporting, modeling, functionality testing, integrated system test, regression testing, or some combination of these as required by Department defined priorities.

2.14.1.   Contractor Approach: The Contractor shall provide and maintain a testing environment that allows the simultaneous testing of BIDM changes, reporting, modeling, functionality testing, integrated system test, regression testing, or some combination of these as required by Department defined priorities.

2.14.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.15.   Reference #3021: The Contractor shall provide the Department with online access to the integrated test environment.

2.15.1.   Contractor Approach: The Contractor shall provide users with online access to the integrated test environments, as authorized and directed by the Department.

2.15.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.16.   Reference #3022: The Contractor shall automate the testing process, where possible, for improvement, changes, or Enhancements to the BIDM.

2.16.1.   The Contractor shall ensure that all automation conforms to the Deliverable submission, review and approval process described in the Change Management Plan.

2.16.2.   Contractor Approach: To support the testing process and defect tracking, the Contractor shall use its test management system. This automated system shall support the management and consolidation of test cases and test activities during testing activities. For the submission and management of formal testing deliverables, automation shall be achieved through the use of the project's document management system.

2.16.3.   Requirement Stage: BIDM Implementation Contract Stage II

2.17.   Reference #3023: The Contractor shall automate the Defect tracking process for any improvements, changes, or Enhancements to the BIDM.

2.17.1.   Contractor Approach: To support defect tracking automation, the Contractor shall implement and operate a test management system. This system shall support the management and consolidation of test cases and test activities during System Integration and Parallel testing activities. For the submission and management of formal testing deliverables, automation shall be achieved through the use of the project's document management system.

2.17.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.18.   Reference #3024: The Contractor shall design, develop, test, and implement changes and Enhancements, per the Configuration Management Plan, that may be selected by the Department

through the Configuration Management Process for implementation during the duration of the Contract.

2.18.1.   Contractor Approach: Contractor shall design, develop, test, and implement changes and Enhancements that may be selected by the Department through the Configuration Management Process. The Contractor shall perform a change and Configuration management program to ensure that production system and hardware changes are carefully controlled, tested, approved, and implemented. The Contractor shall document its Configuration management program within the Configuration Management Plan deliverable, in which it shall document its approach to configuration management and define the methods it will use to execute this program.

2.18.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.19.   Reference #3025: The Contractor shall provide a report to the Department regarding all BIDM changes that have been implemented in the previous month as well as a projection of Change Requests that will be implemented in the upcoming months. This reporting shall also include traceability of actual vs. estimated resources, time, and cost.

2.19.1.   Reporting shall occur monthly unless otherwise established through the Change Management Plan.

2.19.2.   Contractor Approach: The Contractor shall provide the Department with a report of all BIDM Change Requests that it has implemented in the previous month, along with a list of approved, in-process or pending System Change Requests. The Contractor shall collaborate with the Department to determine the frequency, format, and content of the BIDM Change Report and document that information in the Change Management Plan.

2.19.3.   Deliverable: BIDM Change Report

2.19.4.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.20.   Reference #3026: The Contractor shall provide the ability to revert the BIDM to the previous iteration or version when an implemented change to the BIDM, such as an Enhancement, Configuration, Customization or version update, causes an undesirable system impact, within a defined time period in the Change Request.

2.20.1.   Contractor Approach: Prior to implementing any changes to the BIDM during implementation or during production, the Contractor shall require its staff to prepare a contingency plan. This contingency plan shall include an approach to previous iteration/version reversion and shall be made available to the Department upon request.

2.20.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.21.   Reference #3027: The Contractor shall document results of lessons learned for each Enhancement, and incorporate that information into the Change Management Plan to reduce the occurrence of defects in future artifacts and processes (continuous improvement).

2.21.1.   Contractor Approach: The Contractor shall document lessons learned for each Enhancement it implements. The Contractor shall update the Change Management Plan with lessons learned and recommended solutions for improvement. The Contractor shall conduct lessons learned meetings and provide documentation on the timeframes and at the frequency as described in the Change Management Plan.

2.21.2.   Deliverable: Documented Lessons Learned for Each Enhancement

2.21.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.22. Reference #3028: The Contractor shall implement and monitor an internal quality control process to ensure that all Deliverables, documents, and calculations are complete, accurate, easy to understand, and of high quality. This shall include a process to record and address corrective and preventive actions.

2.22.1. Contractor Approach: The Contractor shall maintain and improve ongoing quality control processes to ensure that all BIDM deliverables, documents, and calculations meet standards and conventions. It shall execute all quality processes detailed within the approved QA Plan.

2.22.2. In addition to using established processes to assure the quality of work products and deliverables, the Contractor shall also control the quality of BIDM data and system components. The Contractor shall manage system quality by defining, approving, implementing, and documenting the test plans and test results. These test plans shall identify the specific test cases used to validate that the solution components perform as needed to meet Department requirements.

2.22.3. Requirement Stage: All Contract Stages

2.23. Reference #3029: As defined in the Communication Management Plan, the Contractor shall develop and provide standards and templates for all documentation and communications for review and approval by the Department.

2.23.1. Documentation and communications shall include, but are not limited to, the following:

2.23.1.1. Weekly Status Reports

2.23.1.2. Monthly Status Reports, which shall be the same as the Contract Management Reports

2.23.1.3. THIS REQUIREMENT INTENTIONALLY DELETED

2.23.1.4. Meeting Agendas

2.23.1.5. Meeting Minutes

2.23.2. Contractor Approach: The Contractor shall provide a mutually acceptable template for weekly and monthly Status Reports, Systems Operations Reports, Meeting Agendas, and Meeting Minutes. Whenever practical and applicable, it shall employ approved templates to improve the effectiveness and consistency of communication. The Contractor shall adhere to the approved processes within the Communication Management Plan.

2.23.3. Deliverable: Standards and Templates for Documentation and Communications

2.23.4. Deliverable Stage: BIDM Implementation Contract Stage II

2.24. Reference #3030: As reasonable, the Contractor shall attend in person any meeting with the Department or other Department stakeholders at the location of the meeting, unless the Department gives approval to attend by telephone or video conference. In the event that the Contractor has any personnel attend by telephone or video conference, the Contractor shall be responsible for providing the conference line or virtual meeting place.

2.24.1. Contractor Approach: The Contractor shall attend meetings in the Denver metropolitan area with Department or Department stakeholders in person at the location of the meeting.

2.24.1.1. At the Department's request, the Contractor shall attend meetings within Colorado that are outside the Denver metropolitan area, up to a total of six (6) person-trips per SFY.

2.24.1.1.1. For the purposes of this section, a person-trip shall be considered the attendance of one individual at one meeting outside the Denver metropolitan area that requires a hotel or airfare. In the event that there is more than one meeting outside the Denver metropolitan

area on the same day or on successive days, these meetings shall be considered one meeting for the purposes of calculating the number of person-trips.

2.24.1.2.   For virtual meetings with non-Denver Contractor staff, Contractor's Denver staff shall be present with Department staff during those meetings. In the event the Department approves offsite participation, the Contractor shall provide the appropriate conference line or virtual meeting place.

2.24.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.25.   Reference #3031: As defined in the Communication Management Plan, the Contractor shall maintain complete and detailed records of all meetings related to the Contract, SDLC documents, presentations, project artifacts and any other interactions or Deliverables related to the project described in the Contract and make such records available to the Department upon request, throughout the life of the Contract. The Contractor shall make documentation readily available online in indexed, searchable, downloadable format to Department designated users.

2.25.1.   Contractor Approach: The Contractor shall provide a document management system, through a system such as SharePoint, for maintaining all documentation, meeting agendas and minutes, reports, surveys, presentations, manuals, training materials, and any other project artifacts or deliverables related to the BIDM project. The document management system shall maintain files in an indexed, searchable, downloadable format for authorized users. The Contractor shall adhere to all processes in the approved Communication Management Plan.

2.25.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.26.   Reference #3032: The Contractor shall provide and maintain historical and current documentation of the BIDM, including but not limited to, the BIDM's database schema, data dictionaries, entity-relationship diagrams, complete BIDM system architecture and Configuration diagrams, network diagrams (as applicable), system conversion documentation, and interface standards for the entire BIDM, including those supporting Proprietary Contractor Material, however this does not include proprietary information related to Consumer Off-The-Shelf (COTS) products. The Contractor shall provide and maintain all service delivery documentation related to the design of each module/component and its interaction with other modules/components as appropriate. The Contractor shall make documentation readily available online in indexed, searchable, downloadable format to Department designated users.

2.26.1.   Contractor Approach: The Contractor shall provide the historical and current documentation of the BIDM and maintain all service delivery documentation related to the design of each module/component and its interaction with other modules/components, as appropriate. The Contractor shall provide and maintain documentation on the document management system, or another system as approved by the Department, that enables authorized users to access files in an indexed, searchable, and downloadable format.

2.26.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.27.   Reference #3033: The Contractor shall develop, and maintain online, current documentation on all operational and reference processes, including desk level procedures for Contractor's staff, and shall make these viewable by the Department. The Contractor shall make documentation readily available online in indexed, searchable, downloadable format to Department designated users

2.27.1.   Contractor Approach: The Contractor shall develop and maintain current documentation of the operational and references processes, including desk level procedures that authorized staff can view and download from the document management system.

2.27.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.28.   Reference #3034: The Contractor shall coordinate with the Department to develop CMS Certification Checklist documentation for each MECT Checklist requirement during the CMS Certification Phase.

2.28.1.   Contractor Approach: The Contractor shall coordinate with the Department to develop the MECT Checklist documentation and otherwise help the Department prepare for the Department's CMS certification process.

2.28.2.   Deliverable: CMS Certification Checklist Documentation

2.28.3.   Deliverable Stage: BIDM Implementation Contract Stage III

2.29.   Reference #3035: The Contractor shall takeover existing materials and data including but not limited to production and archived data, reference materials, system documentation, historical CSR documents, and information storage from incumbent contractor.

2.29.1.   The Contractor shall store and manage specified historical materials and data through the life of this Contract.

2.29.1.1.   The Contractor shall only be responsible for storing and making available reference materials, system documentation, and historical CSR documents related to the Legacy System.

2.29.2.   Contractor Approach: The Contractor shall work with the incumbent contractor to transition documentation of the legacy applications from their care. Wherever possible, the Contractor shall store this documentation in the documentation management system. When transitioned documentation cannot be practically stored within the document management system, the Contractor shall store it in a manner approved by the Department. The Contractor shall manage this information throughout the life of this Contract and archive the documentation on these legacy applications only after these systems have been decommissioned and with the Department's permission.

2.29.3.   Requirement Stage: BIDM Implementation Contract Stage I

2.30.   Reference #3036: The Contractor shall develop and submit a phased Data Conversion Plan during the Data Conversion Phase.

2.30.1.   The Data Conversion Plan shall provide detailed requirements including, at a minimum, all of the following:

2.30.1.1.   Discovery and legacy/source system/data evaluation process.

2.30.1.2.   Recommended scope of data conversion based on discovery/evaluation results.

2.30.1.3.   Relevant data sources including all sub-systems.

2.30.1.4.   Department participation needs in the data conversion process development and execution.

2.30.1.5.   Reporting migration requirements, including functionality validation of third-party tools and/or systems.

2.30.1.6.   Documentation of success and failure metrics.

2.30.1.7.   Post data migration cleanup process.

2.30.1.8.   Final validation and acceptance procedure.

2.30.1.9.   Emergency rollback contingency procedures, if applicable.

2.30.2.   Contractor Approach: The Contractor shall develop and submit a phased Data Conversion Plan. The Contractor shall coordinate with the Department to define the project's data conversion requirements and the needed content for the Data Conversion Plan. The Contractor shall work with the Department to ensure that outcomes meet expectations and shall build gate/approval steps into the detailed data conversion plan to ensure high quality results throughout the process.

2.30.3.   Deliverable: Data Conversion Plan

2.30.4.   Deliverable Stage: BIDM Implementation Contract Stage II

2.31.   Reference #3037: During the Data Conversion Phase, the Contractor shall acquire the hardware, software, and associated licenses needed for the Contractor to successfully complete the Data Conversion Phase

2.31.1.   Contractor Approach: The Contractor shall acquire the needed hardware and software to support the data conversion and data migration tasks for which the Contractor has responsibility.

2.31.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.32.   Reference #3038: The Contractor shall implement a fully functioning data migration environment to be used by both the Contractor and Department for current and ongoing migration needs

2.32.1.   The data migration environment shall include the following:

2.32.1.1.   Relevant tools, utilities, and software.

2.32.1.2.   Associated licenses with ownership transferred to the Department.

2.32.1.3.   Appropriate access rights for management, operation, and maintenance.

2.32.2.   Contractor Approach: For current and ongoing migration needs, the Contractor shall implement a fully functional data-migration environment for both the Contractor's and the Department's use in performing tasks for which the Contractor has responsibility.

2.32.3.   Deliverable: Data Migration Environment

2.32.4.   Deliverable Stage: BIDM Implementation Contract Stage II

2.33.   Reference #3039: During the Data Conversion Phase the Contractor shall develop and revise System and User Documentation as required.

2.33.1.   Contractor Approach: The Contractor shall develop and revise deliverables, storing them in the document management system for access and version control.

2.33.2.   Deliverable: Revised System and User Documentation

2.33.3.   Deliverable Stage: BIDM Implementation Contract Stage II

2.34.   Reference #3040: During the Data Conversion Phase, the Contractor shall perform system tests to compare all transferred programs, files, utilities, etc., to determine that the migration was successful.

2.34.1.   Contractor Approach: The Contractor shall create detailed data conversion design specifications that it will review with the Department prior to beginning data conversion coding. As the tasks move into development and testing, the Contractor shall develop detailed test plans. Once approved, the Contractor shall use these test plans to thoroughly vet the accuracy of the data

conversion routines. The Contractor shall address defects and unexpected results identified during testing using the established defect tracking and resolution process.

2.34.2. Requirement Stage: BIDM Implementation Contract Stage II

2.35. Reference #3041: During the Data Conversion Phase, the Contractor shall include migration of the data in the Department's Legacy Systems, including, but not limited to, the MMIS, DSS, PBMS and SDAC to the BIDM. The migration shall be conducted according to conversion parameters and the Data Conversion Plan that are defined by the Contractor in cooperation with the Department. The Contractor shall plan, test, and manage the data conversion process, including the logical and physical data architecture, and use of the data loading tools.

2.35.1. During the Testing Phase, the Department and Contractor will maintain parallel operations for all of the production functionality for a period of no less than three (3) months without errors, unless another timeframe is approved by the Department. The Department will provide the Contractor with the appropriate access to external systems and Department staff will assist the Contractor in developing and testing the Data Conversion Plan.

2.35.2. Contractor Approach: The Contractor shall migrate historical data from the Department's Legacy MMIS that has been converted by the new Core MMIS contractor to the new Core MMIS and that is delivered to the Contractor in the same formats as the new Core MMIS data. The Contractor also shall migrate historical data from the Department's Legacy PBMS that has been converted by the new contractor and that is delivered to the Contractor in the same formats as the new PBMS. Contractor shall develop a detailed Data Conversion Plan, based on input from Department staff that includes identification and evaluation of all legacy data sources and the criteria for converting the data from each source. The new BIDM and Legacy Systems shall run in parallel for a minimum of three months to ensure that the data balances between the Legacy Systems and the BIDM. The Contractor shall conduct testing with help from Department staff to ensure that the BIDM is producing the expected results.

2.35.2.1. The Contractor shall perform data conversion evaluations for the following systems. In each case, these systems' migration and conversion shall be limited to Legacy Systems' data and does not include the migration of the Legacy Systems' source code, object code, third-party software, or other operating systems or processes.

2.35.2.1.1. Legacy MMIS data delivered by the incumbent MMIS contractor.

2.35.2.1.2. Legacy MMIS data supplied by the new Core MMIS contractor that is converted by the Core MMIS contractor to the new Core MMIS and that is delivered to the Contractor in the same formats as the Core MMIS data.

2.35.2.1.3. Legacy SDAC data delivered by the incumbent SDAC contractor.

2.35.2.1.4. Legacy PBMS data delivered by the incumbent MMIS contractor, unless that information is provided by the new PBMS contractor. In either case, the Contractor shall migrate the legacy PBMS data that the PBMS contractor or Core MMIS contractor converts to the formats of the new Core MMIS and/or PBMS, as appropriate.

2.35.2.1.5. PBMS data supplied by the new PBMS contractor.

2.35.2.1.6. Program Integrity TCN Database

2.35.2.1.7. The Department's Recovery Tracking spreadsheet, referral list, suspension of payment, excluded/terminated provider list, tort and casualty database, and Case Log

2.35.3. The evaluations shall determine what approach to take with the data in these applications; that is, whether direct data conversion or system of record migration will be the best approach for sourcing data from these systems. The Contractor shall handle other data migration and integrations requirements as part of the data exchange process with the various source systems.

2.35.4. The Contractor's approach assumes that the Core MMIS contractor and/or the PBMS contractor will convert at least six (6) years of legacy data into the formats of the new Core MMIS and PBMS and deliver to the Contractor the legacy data in the same formats as the new Core MMIS and PBMS data. The Contractor shall capture and store all data converted by the Core MMIS contractor and the PBMS contractor. The Contractor shall store in the data warehouse any older legacy data not converted by the Core MMIS contractor and the PBMS contractors. A total of four (4) years of data additional older data shall be stored in the data warehouse, assuming six (6) years of legacy data are converted, unless otherwise required by the Contract or defined in the Data Conversion Plan. The Contractor shall store and make accessible to authorized users the four (4) years of older data, if not converted by the Core MMIS and PBMS contractor, in an as-is condition without cleansing, transforming, enhancing, or integrating it with the newer six (6) years of data, unless otherwise defined in the Data Conversion Plan.

2.35.5. Requirement Stage: BIDM Implementation Contract Stage II

2.36. Reference #3042: During the Data Conversion Phase, the Contractor shall include migration of the Department's Program Integrity TCN Database into the Claim Tracking Functionality.

2.36.1. Contractor Approach: The Contractor shall include migration of the Department's Program Integrity TCN Database into the Claim Tracking Functionality.

2.36.2. Requirement Stage: BIDM Implementation Contract Stage II

2.37. Reference #3043: During the Design and Definition Phase, the Contractor shall develop and submit a Detailed System Design Plan, to the Department for approval.

2.37.1. The Detailed System Design Plan shall include, but is not limited to:

2.37.1.1. Approach to tracking results and problems from Detailed System Design Sessions.

2.37.1.2. Tools to be used to manage session results and problems.

2.37.1.3. Approach to capturing and tracking potential training considerations identified during design sessions.

2.37.1.4. The format of the proposed Design Specification Document (DSD) deliverable.

2.37.2. Contractor Approach: The Contractor shall develop and submit its Detailed System Design Plan for Department review and approval. This plan shall describe the design of the non-COTS BIDM components. As with each project deliverable, the Contractor shall subject this plan to internal review and quality assurance steps and then submit it to the Department for its review.

2.37.3. Deliverable: Detailed System Design Plan

2.37.4. Deliverable Stage: BIDM Implementation Contract Stage II

2.38. Reference #3044: During the Design and Definition Phase, the Contractor shall develop and submit a Detailed System Design Session schedule for review and approval by the Department.

2.38.1. Contractor Approach: The Contractor shall develop a schedule for needed Detailed System Design sessions. Once the Contractor identifies the session topics and the individuals that should participate, the Contractor shall develop a session framework that addresses session priority and

logical sequencing. The Contractor shall schedule the needed participants, resources and workspace, as approved by the Department.

2.38.2.   Deliverable: Detailed System Design Session Schedule

2.38.3.   Deliverable Stage: BIDM Implementation Contract Stage II

2.39.   Reference #3045: During the Design and Definition Phase, the Contractor shall perform prototyping when appropriate to enable Department staff to review and accept windows, screens, reports, or other layouts designs.

2.39.1.   Contractor Approach: During Requirements Review and Validation sessions and early planning, the Contractor shall identify and leverage joint configuration design and prototyping opportunities. This shall include the planned joint-design of reports, queries and algorithms. The Contractor shall identify the optimal set of participants for this joint-design work, as approved by the Department.

2.39.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.40.   Reference #3046: During the Design and Definition Phase, the Contractor shall develop and provide to the Department for approval an Environment Architecture and Implementation Plan.

2.40.1.   Contractor Approach: The Contractor shall develop and deliver an Environment Architecture and Implementation Plan.   This plan shall document the Contractor's approach to the construction and implementation of the BIDM technical environment.   The Environment Architecture and Implementation Plan shall detail the BIDM architecture and lay out the Contractor's plan for its design, construction, testing and deployment.

2.40.2.   Deliverable: Environment Architecture and Implementation Plan

2.40.3.   Deliverable Stage: BIDM Implementation Contract Stage II

2.41.   Reference #3047: During the Design and Definition Phase, The Contractor shall develop and provide to the Department for approval a Physical and System Security Plan.

2.41.1.   Contractor Approach: The Contractor shall develop and deliver a Physical and System Security Plan. This plan will be specific to the BIDM project and reflect the project's security solution. This plan shall address all aspects of project security, including physical environment and data security. The plan also shall describe the Contractor's approach to securing protected health information (PHI) and other private information from unauthorized access.

2.41.2.   The Contractor's Physical and System Security Plan shall describe how the Contractor will manage information security and privacy policies and methods. It shall detail the security procedures, systems, utilities, and methods for securing and protecting BIDM systems, facilities, and data. Finally, it shall demonstrate that security and privacy methods meet the security policies and requirements of the Department, OIT, the Office of Information Security and other applicable state and federal agencies.

2.41.3.   Deliverable: Physical and System Security Plan

2.41.4.   Deliverable Stage: BIDM Implementation Contract Stage II

2.42.   Reference #3048: During the Design and Definition Phase, the Contractor shall prepare and submit to the Department for approval, the Detailed System Design Session meeting notes and include the decisions, justification for changes, (including new, modified, or deleted requirements), outstanding problems requiring follow-up, and impacts to future detailed design sessions

2.42.1.   Contractor Approach: The Contractor shall prepare and submit Detailed System Design Session meeting notes and include the decisions, justification for changes (including new, modified, or deleted requirements), outstanding problems requiring follow-up and impacts to future detailed design sessions. The Contractor shall manage Detailed System Design Session issues and action items within the document management system.

2.42.2.   Deliverable: Detailed System Design Session Meeting Notes

2.42.3.   Deliverable Stage: BIDM Implementation Contract Stage II

2.43.   Reference #3049: During the Design and Definition Phase, the Contractor shall submit a draft Design Specification Document (DSD) that incorporates comments submitted by the Department.

2.43.1.   Contractor Approach: The Contractor shall deliver draft Detailed System Design documents for the Department's review. The draft DSD shall include the design specifications needed by configuration teams to configure or customize solution components. The draft DSD shall provide configuration instructions related to COTS component data models, interfaces, data feeds, logic, and settings. The draft Design Specification Document (DSD) shall incorporate comments submitted by the Department.

2.43.2.   Deliverable: Draft DSD

2.43.3.   Deliverable Stage: BIDM Implementation Contract Stage II

2.44.   Reference #3050: During the Design and Definition Phase, the Contractor shall develop a final DSD based on the facilitated design sessions. Detailed design specifications may be delivered incrementally, as they are developed for each functional component or module, with final approval when all are approved.

2.44.1.   The DSD shall also include a Systems Documentation Template depicting the outline for the proposed content of the System Documentation.

2.44.2.   Examples of information to be included in the System Documentation are hardware and software, descriptions of the services and infrastructural components, and other necessary system information.

2.44.3.   Contractor Approach: Following the draft DSD submission and review, the Contractor shall compile Department feedback and needed changes into a final version of this document. As with the draft DSD, the Contractor shall follow quality and submission processes and submit the final DSD documents for the Department's review and approval.

2.44.4.   Deliverable: Final DSD

2.44.5.   Deliverable Stage: BIDM Implementation Contract Stage II

2.45.   Reference #3051: During the Design and Definition Phase the Contractor shall update and maintain the RTM with results from Detailed System Design Sessions.

2.45.1.   Contractor Approach: The Contractor shall maintain and update the RTM throughout the Design and Definition Phase and shall provide to the Department an updated RTM at the time of the Final DSD. As BIDM requirements will be under change control, the Contractor shall accompany any such requirement updates with background documentation to demonstrate the impact of design session discussions.

2.45.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.46.	Reference #3052: During the Development Phase, the Contractor shall develop and submit to the Department a Unit Test Checklist Template and Unit Test Plan that describes the Contractor's approach, methodology, success criteria, and schedule for unit testing of the BIDM.

2.46.1.	Contractor Approach: The Contractor shall develop and submit a Unit Test Checklist Template and Unit Test Plan that describes the Contractor's approach, methodology, success criteria, and schedule for unit testing of the BIDM.

2.46.2.	Deliverable: Unit Test Checklist Template and Unit Test Plan

2.46.3.	Deliverable Stage: BIDM Implementation Contract Stage II

2.47.	Reference #3053: During the Development Phase, the Contractor shall conduct unit testing and submit results via Unit Test Checklists attesting that each component and module has been thoroughly unit-tested, meets the checklist criteria, and is therefore ready for system test.

2.47.1.	Contractor Approach: The Contractor shall conduct unit testing and submit the test results via Unit Test Checklists. Working from the Unit Test Plan and Checklists, the Contractor shall execute and evaluate unit tests before releasing the program for use in subsequent database builds and test cycles. Unit testing shall be considered complete when all test conditions pass.

2.47.1.1.	Unit testing shall confirm all of the following:

2.47.1.1.1.	Every logic condition executes correctly.

2.47.1.1.2.	Input parameters are handled correctly.

2.47.1.1.3.	Aggregate statistics and conversion operations reports are correct.

2.47.1.2.	The Contractor shall submit results via Unit Test Checklists, attesting that each component and module has been thoroughly unit tested, meets the checklist criteria, and is therefore ready for system integration testing.

2.47.2.	Requirement Stage: BIDM Implementation Contract Stage II

2.48.	Reference #3054: During the Development Phase, the Contractor shall provide weekly updates and performance metrics on unit testing and development progress to the Department as part of the weekly status reports.

2.48.1.	Contractor Approach: The Contractor shall provide weekly updates and metrics on unit testing, development progress and integration testing. The Contractor shall deliver these reports, along with other project status information, at weekly status reports and status meetings.

2.48.2.	Requirement Stage: BIDM Implementation Contract Stage II

2.49.	Reference #3055: During the Development Phase, the Contractor shall conduct development walkthroughs as appropriate to demonstrate to the Department that all BIDM functions have been completely and accurately developed and unit-tested and record problems using the Project Control and Issue Tracking process.

2.49.1.	Contractor Approach: The Contractor shall conduct development walkthroughs for non-COTS components as appropriate to demonstrate to the Department that all system functions have been completely and accurately developed and unit-tested, and any problems have been recorded using the Project Control and Issue Reporting System. It shall use information from the RTM, DSD, status reports, and unit test results to demonstrate development and configuration activities were successfully completed. It shall use testing and change management artifacts to discuss design and development changes and issue resolution.

2.49.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.50.   Reference #3056: The Contractor shall develop and submit a Requirements Definition and Validation Plan

2.50.1.   The Requirements Definition and Validation Plan shall include, at a minimum, all of the following:

2.50.1.1.   A description of the Contractor's approach to capturing the results and problems of Requirement Review and Validation Sessions.

2.50.1.2.   Tools that will be used to record and track requirements and problems.

2.50.1.3.   A description of how potential training needs will be recorded during the requirements sessions.

2.50.1.4.   A Requirements Review and Validation Session schedule for review by the Department.

2.50.1.5.   Requirements Review and Validation Session agendas distributed prior to each session.

2.50.1.6.   Facilitation of requirements review and validation sessions to validate Contract requirements, as listed in this Exhibit C, Requirements, with the Department.

2.50.1.7.   Conducting interviews with Department staff to validate, clarify, update, and finalize requirements.

2.50.2.   Contractor Approach: The Contractor shall develop and submit a Requirements Definition and Validation Plan to the Department for its review and approval. This plan shall lay out the methods we will follow to conduct requirements. Once approved, the Contractor shall begin preparing for and conducting Requirements Review and Validation (RRV) and Data Summit meetings.

2.50.3.   Deliverable: Requirements Definition and Validation Plan

2.50.4.   Deliverable Stage: BIDM Implementation Contract Stage II

2.51.   Reference #3057: The Contractor shall develop and submit to the Department a draft Requirements Specification Document (RSD) for Contractor-proposed BIDM components, modules and functional areas.

2.51.1.   At minimum, the RSD should include:

2.51.1.1.   An overview of BIDM architecture and how components are integrated.

2.51.1.2.   Detailed Requirements Specification Template.

2.51.1.3.   Identification of changes to Contract requirements.

2.51.1.4.   Clarifying information associated with requirements, as needed.

2.51.1.5.   Identification of new requirements

2.51.1.6.   Explanation of how requirements will be met.

2.51.1.7.   Identification of the entity responsible for meeting the requirement.

2.51.1.8.   Description of the hardware/software Configuration that will be used to meet the requirement.

2.51.1.9.   A logical data model that identifies all entities, relationships, attributes, and access paths.

2.51.2. Contractor Approach: The Contractor shall develop and submit to the Department a draft RSD for Contractor-proposed BIDM components, modules and functional areas. The RRV process shall produce a draft RSD to serve as the driver for interface, database, extract, and report design. The Contractor shall augment requirements with the requirement clarifications that surfaced during the Data Summits, Technical Requirements Sessions and throughout the implementation.

2.51.3. Deliverable: Draft RSD

2.51.4. Deliverable Stage: BIDM Implementation Contract Stage II

2.52. Reference #3058: During the Discovery and Requirements Validation/Requirement Elicitation Phase, the Contractor shall compile the final RSD that incorporates the Department's review findings to reflect all requirements that need to be met as defined in the facilitated Requirement Review and Validation Sessions. Detailed requirement specifications may be delivered incrementally, as they are developed for each functional component or module.

2.52.1. Contractor Approach: Following the Department's review of the draft RSD, the Contractor shall compile reviewers' findings, comments, and feedback into a final version of this phase deliverable. Once the final RSD is finished and ready for submission, the Contractor shall conduct an RSD walkthrough with the Department to review and confirm the revised document's contents and set evaluation expectations. After the walkthrough, the Contractor shall deliver the final RSD deliverable to the Department for formal review and approval.

2.52.2. Deliverable: Final RSD

2.52.3. Deliverable Stage: BIDM Implementation Contract Stage II

2.53. Reference #3059: During the Discovery and Requirements Validation/Requirement Elicitation Phase, the Contractor shall develop and maintain a Business Rules Traceability Matrix to ensure that the business rules will allow the BIDM to comply with the requirements and ensure that detailed requirements comply with Contract requirements.

2.53.1. Contractor Approach: The Contractor shall develop and submit the Business Rules Traceability Matrix deliverable for the Department's review and approval. Its focus shall be on key BIDM-related business policies and business rules and it shall be important for requirements verification. This document maps specific requirements to the design components that address each requirement.

2.53.2. In this process, Business Rule/Requirement Validation seeks to understand business rules and processes, the analytics required to support them, and the identification of missing or Colorado-specific analytic capabilities. The Contractor's business requirements analysis approach shall evaluate requirements from their origin through their satisfaction in analytic systems design.

2.53.3. Deliverable: Business Rules Traceability Matrix

2.53.4. Deliverable Stage: BIDM Implementation Contract Stage III

2.54. Reference #3060: During the Enhancements Phase, The Contractor shall develop an Enhancements Test Plan that describes the approach to all testing necessary to implement Enhancements.

2.54.1. Contractor Approach: When it enters the Enhancements Phase, the Contractor shall document and submit the Enhancements Test Plan to the Department for review and approval. This document shall describe its approach to testing enhancements and identify key testing processes, test cases, and results deliverables. Once approved, the Contractor shall apply the approach and processes to future Enhancement Test Plans.

2.54.2.   Deliverable: Enhancements Test Plan

2.54.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.55.   Reference #3061: During the Enhancements Phase, the Contractor shall design, document, submit to the Department for approval, and implement, detailed test cases (UAT initial test cases and detailed system test cases) for Enhancement testing. Test cases should include client IDs, detailed steps, expected results, actual results (where appropriate), and be traceable to requirements listed in this Contract in the RTM.

2.55.1.   Contractor Approach: The Contractor shall design, document, and obtain Department approval of detailed system and UAT test cases for each Enhancement. The Contractor shall manage the quality of the Enhancement solution by defining it, running test cases, resolving problems and retesting, and documenting the test results. Each Enhancement test plan shall identify the specific test cases the Contractor will use to ensure the solution components perform as needed. The detailed test cases/scenarios shall validate the configuration of applications and data models, the usability of the tools, and the proper execution of all functions.

2.55.2.   Deliverable: Detailed Test Cases

2.55.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.56.   Reference #3062: During the Enhancements Phase, the Contractor shall submit for approval all Test Results for each test sub-phase to the Department.

2.56.1.   Test Results shall include, at a minimum, all of the following:

2.56.1.1.   Summary of testing results.

2.56.1.2.   Pass/Failure Rate.

2.56.1.3.   Defect IDs and severity level of failed test cases.

2.56.1.4.   Proposed resolution for identified defects.

2.56.1.5.   Performance/Stress Testing Results.

2.56.1.6.   Final Enhancements Test Results.

2.56.1.7.   Penetration Test Results.

2.56.2.   The following tests shall be done independently with the results, Defects and severity level, pass/fail rate, and proposed resolution for identified Defects submitted to the Department:

2.56.2.1.   Performance/Stress Testing.

2.56.2.2.   Final Enhancements Test Results.

2.56.2.3.   Penetration Test Results.

2.56.3.   Contractor Approach: The Contractor shall provide the Department with test result details using its test management system. The Contractor shall manage and record all system, performance, stress (where applicable), operational readiness, UAT, and Enhancement tests and test results within the test management system. The Contractor shall provide the Department with frequent summaries and metrics on testing progress throughout testing periods. The Department shall be able to view detailed information on test execution and results within the test management system at any time.

2.56.4.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.57. Reference #3063: During the Enhancements Phase, the Contractor shall collaborate with the Department to identify and prioritize its system requirements that are not included in the base BIDM and are outside of the requirements in this Exhibit, following the Change Management Process.

2.57.1. Contractor Approach: The Contractor shall collaborate with the Department to identify and prioritize BIDM System Enhancements. The Contractor shall route all System Enhancement requests through the approved Change Management Process.

2.57.2. The Contractor shall track Enhancement Change Requests throughout the term of the Contract. The Contractor shall assess each System Enhancement change request to determine the impacts to other project activities and project areas, such as scope, schedule, cost, and quality. Using this information, it shall assist the Department's efforts to identify and prioritize the Enhancement Change Requests.

2.57.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.58. Reference #3064: During the Roll Out Phase, the Contractor shall develop an Implementation Strategy and include all input from the Department.

2.58.1. The Implementation Strategy shall describe, at a minimum, all of the following:

2.58.1.1. The phased approach to the BIDM rollout to BIDM user groups and/or of functionality.

2.58.1.2. The proposed implementation schedule.

2.58.1.3. A tracking process for Problems and Defects.

2.58.1.4. Communication and Contractor support procedures.

2.58.1.5. Contractor and Department roles and responsibilities.

2.58.1.6. Operational Readiness Criteria and Operational Readiness Walkthrough approach that addresses Contractor and system and Department readiness.

2.58.1.7. BIDM acceptance criteria and procedures.

2.58.2. Contractor Approach: The Contractor shall develop an Implementation Strategy and include all input from the Department. This strategy document shall present the Contractor's strategy for production cutover and the start of BIDM operations. This deliverable shall provide a series of checklists that both the Contractor and the Department can use to manage the myriad tasks involved in this dynamic process. Working from the project Work Breakdown Structure and Schedule and its standard implementation guidelines, the Contractor shall develop subject-specific checklists that identify key activities and decisions that must occur.

2.58.3. Deliverable: Implementation Strategy

2.58.4. Deliverable Stage: BIDM Implementation Contract Stage II

2.59. Reference #3065: The Contractor shall conduct an Operational Readiness Walkthrough with the Department prior to the initial BIDM Implementation and Roll Out Phase.

2.59.1. The Operational Readiness Walkthrough shall validate the Contractor's, BIDM's, and Department's operational readiness. The Contractor shall not implement the next BIDM Roll Out Phase prior to the Department formally signing off on the Operational Readiness Walkthrough.

2.59.2. Contractor Approach: The Contractor shall conduct an Operational Readiness Walkthrough with the Department prior to the initial BIDM Implementation and Roll Out Phase. The Contractor

shall perform Operational Readiness Walkthroughs for the Department to review the findings of the Operational Readiness Test (ORT) it will have conducted during the Testing Phase. The ORT shall demonstrate the Contractor's readiness to deliver, operate, and support the BIDM production environments. It shall also demonstrate that each Contractor unit is trained, staffed, and ready to commence operational duties.

2.59.3. Requirement Stage: BIDM Implementation Contract Stage II

2.60. Reference #3066: During the Implementation and Roll Out Phase, the Contractor shall develop a "Go-Live" Support Plan that documents the onsite and offsite user support provided by the Contractor in conjunction with the Department during the initial BIDM implementation.

2.60.1. "Go-Live" is defined as the period when the Production environment is first accessed by authorized BIDM users to support business functions to the time when the Department formally accepts the BIDM. The "Go-Live" support model is different than the System User Support functions, which is meant to support the BIDM once operationally stable.

2.60.2. System User Support requirements may be substantially greater whenever new components of the BIDM are rolled-out. The "Go-Live" Support Plan shall anticipate additional support that will be required and detail how those needs will be met.

2.60.3. Contractor Approach: During the Implementation and Roll Out Phase, the Contractor shall develop a "Go-Live" Support Plan that documents the onsite and offsite user support provided by the Contractor in conjunction with the Department during the initial BIDM implementation. The Contractor shall deliver its "Go-Live" Support Plan in tandem with its formal Implementation Strategy, Implementation and Roll Out Plan, and Post-Implementation Operational Monitoring Plan deliverables. The Contractor shall accompany this with a walkthrough meeting to discuss implementation topics with the Department and incorporate its feedback.

2.60.4. Deliverable: "Go-Live" Support Plan

2.60.5. Deliverable Stage: BIDM Implementation Contract Stage II

2.61. Reference #3067: During the Implementation and Roll Out Phase, the Contractor shall develop an Implementation and Roll Out Plan that details planning and roadmaps for managing all BIDM releases, if applicable.

2.61.1. This shall include managing dependencies across releases along with handling technology stacks, databases and infrastructure to match the roll out needs.

2.61.2. Contractor Approach: The Contractor shall develop an Implementation and Roll Out Plan that details planning and roadmaps for managing all BIDM releases, if applicable. The Implementation and Roll Out Plan shall identify the strategy, methods, processes, procedures, and staffing to be used to ensure that users experience the best possible transition to the BIDM. The Plan shall document how the BIDM System components will be rolled out to users and management staff. It shall identify dependencies across releases along with handling technology stacks, databases and infrastructure to match the roll out needs. The Implementation and Roll Out Plan and our Training Plan shall be developed using the Department's projections of BIDM users for BIDM components.

2.61.3. Deliverable: Implementation and Roll Out Plan

2.61.4. Deliverable Stage: BIDM Implementation Contract Stage III

2.62. Reference #3068: During the Implementation and Roll Out Phase, the Contractor shall develop a Post-Implementation Operational Monitoring Plan, including methods and schedules for the Department and the Contractor to conduct post-implementation monitoring of BIDM operations related to performance expectations as described in this Exhibit C.

2.62.1. Contractor Approach: Following implementation planning activities, the Contractor shall develop and submit a Post-Implementation Operational Monitoring Plan for review and approval. This plan shall describe the approach to post-implementation monitoring of BIDM operations, as it relates to performance expectations. The plan shall include the measures and artifacts desired, along with details on reporting content, media, and scheduling.

2.62.2. Using the Implementation Strategy and Implementation Rollout Plan (IRP) documents, the Contractor's Operational Transition and Readiness project manager shall develop a plan that demonstrates that its implementation was effective, that the production systems achieved planned performance levels, and that the BIDM is performing operational duties at required service levels.

2.62.3. Deliverable: Post-Implementation Operational Monitoring Plan

2.62.4. Deliverable Stage: BIDM Implementation Contract Stage III

2.63. Reference #3069: During the Implementation and Roll Out Phase, the Contractor shall update system documentation and operating procedures with lessons learned from the Implementation and Roll Out Phase.

2.63.1. Contractor Approach: The Contractor shall update System Documentation throughout the stages and phases as warranted. These changes might be driven by Change Requests, defect resolutions, or other approved change protocols. If the Contractor introduces changes because of lessons learned from Implementation and Roll Out Phase activities, it shall update the System Documentation accordingly. The same shall hold true for operating procedures, training material, or other user documentation.

2.63.2. Deliverable: Updated System Documentation and Operating Procedures

2.63.3. Deliverable Stage: BIDM Implementation Contract Stage II

2.64. Reference #3070: During the Implementation and Roll Out Phase, the Contractor shall obtain formal Department approval for the implementation of the BIDM.

2.64.1. Contractor Approach: The Contractor shall begin BIDM operations once DDI activities have been completed and the Department provides formal approval to start the Operations Phases. To support the implementation-approval decision, the Contractor shall provide the results of its Implementation Checklists, completion metrics from the Implementation Project Work Plan, and implementation issue status from the Issues Management System. Once the Department determines that the Contractor has completed implementation activities successfully, the Department will formally approve, without undue delay, the BIDM implementation in the form of an attestation letter.

2.64.2. Deliverable: Operational Readiness Walkthrough

2.64.3. Deliverable Stage: BIDM Implementation Contract Stage II

2.65. Reference #3071: During the Implementation and Roll Out Phase, the Contractor shall prepare a Post-Implementation Evaluation Report.

2.65.1. The Post-Implementation Evaluation Report shall include all of the following:

2.65.1.1. Lessons learned.

2.65.1.2. Project successes and failures.

2.65.1.3. Evaluation metrics including:

2.65.1.3.1. Actual and planned budget comparisons.

2.65.1.3.2. Actual and planned schedule comparisons.

2.65.1.3.3. Actual and planned scope comparisons.

2.65.1.4. BIDM user satisfaction by User Level.

2.65.1.5. Benefits gained over the previous legacy systems.

2.65.1.6. The current status of the BIDM.

2.65.1.7. Ongoing contingencies or problems and recommended solutions.

2.65.1.8. Ability for the BIDM to meet all established Service Level Agreements (SLAs).

2.65.2. Contractor Approach: The Contractor shall develop and submit a Post-Implementation Evaluation Report to describe the result of implementation activities. This report shall summarize the Implementation Strategy, IRP, and Implementation Checklists, and it shall compare planned performance against actual results. In developing this report, the Contractor shall conduct a series of surveys and interviews with staff from both organizations to measure implementation performance, results, and user satisfaction. The report will document issues and the actions taken to resolve them.

2.65.3. The Contractor shall finalize its Post-Implementation Evaluation Report and submit it to the Department for review and approval. Once approved, the Contractor shall maintain the report in the project's documentation repository.

2.65.4. Deliverable: Post-Implementation Evaluation Report, which will be delivered as part of the System Operations and Maintenance Plan.

2.65.5. Deliverable Stage: BIDM Implementation Contract Stage III

2.66. Reference #3072: The Contractor shall develop and submit for Department approval a Project Management Plan, as defined in the most current edition of "A Guide to the Project Management Body of Knowledge (PMBOK)". The Project Management Plan shall define how the Contractor shall manage all aspects of the Contract that affect price, schedule, performance (scope and quality), risk/issues/opportunities, and applicable resources. The plan shall be delivered to the Department during the Initiation and Planning Phase and updated through the duration of the Contract as agreed upon between the Department and the Contractor.

2.66.1. The Project Management Plan shall include at a minimum:

2.66.1.1. Approach for executing monitoring and controlling the project.

2.66.1.2. Approach for managing resources and training.

2.66.1.3. Approach for managing communication and reporting.

2.66.1.4. Approach for managing scope, schedule, and cost.

2.66.1.5. Approach to managing risk and project issues.

2.66.1.6. Approach to managing changes.

2.66.1.7.   Approach to configuration management.

2.66.1.8.   Deliverable review and acceptance procedures.

2.66.1.9.   SDLC approach.

2.66.2.   The Project Management Plan shall include an approach that minimizes asymmetric understanding of the Contract status.

2.66.3.   Contractor Approach: The Contractor shall develop and submit a Project Management Plan (PMP) for review and approval. The PMP shall define how the Contractor will manage all aspects of the contract affecting price, schedule, performance (scope and quality), risk/issues/opportunities, and applicable resources. Once the Department approves the PMP, the Contractor shall maintain it within the project document management system.

2.66.4.   Deliverable: Project Management Plan

2.66.5.   Deliverable Stage: BIDM Implementation Contract Stage II

2.67.   Reference #3073: The Contractor shall establish a project management structure to manage projects related to BIDM implementation, BIDM Enhancements, BIDM maintenance, and ongoing operations throughout the Contract Stages, generate project-related work products and Deliverables, and report project status to the Department team. The project management structure will be responsible for generating key project management tools.

2.67.1.   Contractor Approach: The Contractor shall establish a project management structure to manage projects related to BIDM implementation, BIDM Enhancements, BIDM maintenance, and ongoing operations throughout the Contract Stages, generate project-related work products and Deliverables, and report project status to the Department team. This PMP plan shall also provide a structure to manage projects related to system implementation, system enhancements, system maintenance, and ongoing operations throughout the BIDM stages and phases. The plan shall describe the generation of project-related work products and deliverables, and shall provide information on the project's status.

2.67.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.68.   Reference #3074: During the Initiation and Planning Phase, the Contractor shall build and maintain the Project Work Breakdown Schedule, as defined in the most current edition of the PMBOK, that includes both Contractor and Department tasks.   All tasks shall be identified at a detailed level of a rolling ninety (90) calendar day basis, unless otherwise coordinated and agreed to by the Department.

2.68.1.   The Contractor shall make weekly updates to its portion of the overall project schedule as agreed to by the Department.

2.68.2.   Contractor Approach: The Contractor shall build and maintain the Project Work Breakdown Schedule that includes both Contractor and Department tasks. Early in the project, the Contractor shall meet with Department and Colorado PMO/OIT representatives, as necessary, to finalize the Work Breakdown Structure and Schedule (WBSS). Once formalized and approved, this initial plan shall serve as the project baseline. The WBSS shall be developed from both Contractor project planning methods and conventions and from PMBOK and industry standards. The WBSS shall identify tasks at a detailed level of a rolling ninety (90) calendar-day basis, unless otherwise coordinated and agreed to by the Department. Contractor's ability to meet the project deadlines as set forth in the Project Work Breakdown Schedule is directly

dependent on the source data suppliers delivering to Contractor complete and useable data in the agreed-to formats and with the agreed-to data documentation by the dates shown in the Schedule.

2.68.3.   Deliverable: Project Work Breakdown Schedule

2.68.4.   Deliverable Stage: BIDM Implementation Contract Stage II

2.69.   Reference #3075: During the Initiation and Planning Phase, the Contractor shall develop a QA Plan, based on best practices, by business activity to address the needs and specific opportunities for quality improvement throughout the Contract term.

2.69.1.   The QA Plan shall reflect the Contractor's experience and resolve toward:

2.69.1.1.   Methodology for maintaining quality of the code, workmanship, project schedules, Deliverables, and Subcontractor(s) activities.

2.69.1.2.   Quality in systems design, testing, and implementation.

2.69.1.3.   Process design and staff training.

2.69.1.4.   Performance standards development and measurement.

2.69.1.5.   Customer satisfaction measurement and analysis.

2.69.1.6.   System maintenance and upgrade options.

2.69.2.   The Contractor shall update the QA Plan annually.

2.69.3.   Contractor Approach: The Contractor shall develop a QA Plan, based on best practices, by business activity to address the needs and specific opportunities for quality improvement throughout the Contract term. This plan shall define the Contractor's objectives and approach for developing and ensuring quality, encompassing quality planning, quality assurance, and quality control. This plan shall be proactive and focuses on preventing problems from occurring and establishing cooperative working relations across the project team and vendors.

2.69.4.   This plan shall describe the processes and measures to be utilized to ensure that project tasks and deliverables are completed correctly, on-time, and within budget. This plan shall address the requirements and measures as well as the key performance indicators documented in the Statement of Work.

2.69.5.   The Contractor shall include the Department in the quality assurance process and shall document the Department's role and involvement in the QA Plan.

2.69.6.   Deliverable: QA Plan

2.69.7.   Deliverable Stage: BIDM Implementation Contract Stage II

2.70.   Reference #3076: During the Initiation and Planning Phase, the Contractor shall develop a Communication Management Plan, as defined in the most current edition of PMBOK, for the services outlined in this Contract.

2.70.1.   The Communication Management Plan shall describe, at a minimum:

2.70.1.1.   The Contractor's communication model with the Department and other entities.

2.70.1.2.   The Contractor's approach to meeting the communication requirements throughout the course of the Contract performance period.

2.70.1.3. The Contractor's approach to maintaining telephone and email contact with the Department's assigned Division Director and other designated staff on at least a weekly basis throughout the Contract period.

2.70.1.4. During critical implementation, development, and transition phases, the Contractor's approach to maintaining daily contact with the Department's project managers, as appropriate.

2.70.1.5. The Project Stakeholders.

2.70.1.6. The frequency and breadth of communication.

2.70.1.7. Communication methods.

2.70.1.8. THIS REQUIREMENT INTENTIONALLY DELETED.

2.70.1.9. The review and approval process, including a process for facilitating a Department review of each Deliverable outline and draft documents to ensure common understanding of the purpose and content of documentation prior to final delivery.

2.70.1.10. Create Standard System Report Templates.

2.70.2. The Contractor shall update the Communication Management Plan whenever changes occur, but at least annually.

2.70.3. Contractor Approach: The Contractor shall develop and submit a Communication Management Plan for Department review and approval. The Contractor shall meet with the Department during the Initiation and Planning Phase to discuss and formulate the methods both organizations will use to report status and exchange information. During the Project Kick-Off meeting, communication methods and protocols shall be explained and roles, responsibilities, and communication channels clearly established. The Contractor shall detail these methods in its Communications Management Plan.

2.70.4. Deliverable: Communication Management Plan

2.70.5. Deliverable Stage: BIDM Implementation Contract Stage II

2.71. Reference #3077: During the Initiation and Planning Phase, the Contractor shall develop a Risk and Issue Management Plan to ensure that risks are identified, analyzed, mitigated, communicated, and solutions to identified risks are effectively executed.

2.71.1. Contractor Approach: The Contractor shall develop a Risk and Issue Management Plan to ensure that risks are identified, analyzed, mitigated, communicated, and solutions to identified risks are effectively executed. The Contractor shall deliver the Risk and Issue Management Plan as a free-standing deliverable separate from the Project Management Plan deliverable. The plan shall incorporate the processes, procedures, and timing for identifying risks and planning the potential responses to the risks. The Contractor shall maintain a Risk Log and Issue Log and the associated procedures for tracking and monitoring risks and issues within the document management system. The Contractor shall document its method for quantifying and qualifying a risk and its impact on the project.

2.71.2. Deliverable: Risk and Issue Management Plan

2.71.3. Deliverable Stage: BIDM Implementation Contract Stage II

2.72. Reference #3078: The Contractor shall provide a Business Continuity and Disaster Recovery Plan.

2.72.1. The Business Continuity and Disaster Recovery Plan shall include:

2.72.1.1.   Timely failover and redundancy.

2.72.1.2.   Data recovery.

2.72.1.3.   Short- and long-term continuity operations.

2.72.1.4.   Remote access (in accordance with Department standards).

2.72.1.5.   An alternate business site if the primary business site becomes unsafe or inoperable.

2.72.1.6.   Root cause analysis reporting to the Department for unscheduled downtime.

2.72.1.7.   Provide data backup.

2.72.1.8.   Schedule and process for testing of the Business Continuity and Disaster Recovery Plan.

2.72.1.9.   The Relocation Risk/Contingency Plan.

2.72.2.   Contractor Approach: The Contractor shall develop a Business Continuity and Disaster Recovery (BCDR) Plan, which shall consist of four (4) documents, and submit it to the Department for its review and approval. The review period shall begin after the fourth document is delivered. The purpose of the BCDR Plan shall be to guide the Contractor in preparing for and responding to an emergency. An emergency shall be defined as any unplanned event that can involve serious injury or death to employees or the public; can shut down a business, disrupt operations, or cause physical environmental damage; or threaten the Contractor's financial standing or public image. Numerous events may be classified as emergencies, including major weather events, floods, earthquakes, fires, hazardous materials incidents, loss of key suppliers, communications failures, chemical or radiological accidents, terrorist acts, and civil disturbances.

2.72.3.   Deliverable: Business Continuity and Disaster Recovery Plan

2.72.4.   Deliverable Stage: BIDM Implementation Contract Stage II

2.73.   Reference #3079: THIS REQUIREMENT INTENTIONALLY DELETED

2.74.   Reference #3080: If necessary, the Contractor shall implement the Business Continuity and Disaster Recovery Plan as specified to maintain BIDM and Contractor operations.

2.74.1.   Contractor Approach: The Contractor shall implement the Business Continuity and Disaster Recovery Plan, as required, to direct the recovery of BIDM and Contractor operations.

2.74.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.75.   Reference #3081: The Contractor shall develop a System Operational Procedures Manual for the BIDM, which provides guidelines for the operation and use of the BIDM.

2.75.1.   At a minimum, the manual shall contain the following sections:

2.75.1.1.   Policies, processes and workflows related to the BIDM.

2.75.1.2.   General requirements for compliance with privacy and security.

2.75.2.   Contractor Approach: The Contractor shall develop and submit a Systems Operational Procedures Manual, which provides guidelines for operating and using the BIDM. In addition to supporting ongoing systems operation, the Systems Operational Procedures Manual shall be a tool for training new staff members. The Contractor shall maintain this document in its document management system.

2.75.3.   Deliverable: System Operational Procedures Manual

2.75.4.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.76.   Reference #3082: During the Operations and Maintenance Phase, the Contractor shall create a System Operations and Maintenance Plan.

2.76.1.   The System Operations and Maintenance Plan shall include the following:

2.76.1.1.   Defect identification, tracking, and correction process.

2.76.1.2.   Plan for maintaining security on a database, network, and individual authorized BIDM user level including maintenance of authorized BIDM user accounts.

2.76.1.3.   Help Desk Support Plan including, at minimum:

2.76.1.3.1.   Available support services and proposed help desk staffing model that will ensure the performance expectations detailed in this Appendix.

2.76.1.3.2.   Internal Contractor policies to ensure Protected Health Information (PHI), Personally Identifiable Information (PII) and other Department or client data are only shared with authorized BIDM users.

2.76.1.3.3.   Valid after-hour contact and problem reporting process and contact information.

2.76.1.4.   System documentation, including end-user and system administrator documentation.

2.76.1.5.   Proposed Contractor staffing model for the Operations Phase.

2.76.1.6.   Process for submitting operations problem reports to the Department when operational problems occur, describing the nature of the problem, the expected impact on ongoing functions, a corrective action plan, the expected time of problem resolution and communicating end-result. Process for communicating with authorized BIDM users.

2.76.1.7.   Templates for Systems Operations Reports, including performances against established SLAs.

2.76.1.8.   Technical Support Protocols.

2.76.1.9.   A schedule for the periodic refresh of data in all test system environments.

2.76.1.10.   Report Distribution Schedule.

2.76.2.   Contractor Approach: The Contractor shall create a System Operations and Maintenance Plan and deliver it to the Department for its review and approval.

2.76.3.   Deliverable: System Operations and Maintenance Plan

2.76.4.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.77.   Reference #3083: During the Operations and Maintenance Phase, the Contractor shall publish a System Software Version Release Schedule as part of the annual business plan and provide updates to the Department as requested.

2.77.1.   Contractor Approach: The Contractor shall publish the known and anticipated System Software Version Release Schedule for BIDM software products in the Annual Business Plan. Should release plans change, the Contractor shall update and deliver the new schedule to the Department.

2.77.2.   Deliverable: System Software Release Schedule

2.77.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.78.   Reference #3084: There shall be a Warranty Period, as defined in the Contract.

2.78.1.   Contractor Approach: Contractor shall adhere to the Warranty commitment as set forth in Section 15.H of this Contract.

2.78.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.79.   Reference #3085: The Contractor shall provide regular updates to Department during the Organizational Readiness period.

2.79.1.   Contractor Approach: The Contractor shall provide regular updates, as described in the Communication Management Plan, to Department during the Organizational Readiness period.

2.79.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.80.   Reference #3086: The Contractor shall provide support to the Department as part of Organizational Readiness, including providing the Operational Transition and Readiness Project Manager and a minimum of two staff members who will be available as required to address questions and concerns.

2.80.1.   This support shall be available during Department business hours.

2.80.2.   Contractor Approach: The Contractor shall conduct the training and readiness activities needed to prepare the Department for BIDM Operations. The Contractor shall train Department staff to use BIDM components and enable user functionality at the levels required for them to be successful and effective. The Contractor shall provide an Operational Transition and Readiness project manager and commit to provide multiple staff members who shall be available as required to address questions and concerns.

2.80.3.   Requirement Stage: BIDM Implementation Contract Stage II

2.81.   Reference #3087: The Contractor shall ensure all necessary BIDM system access is in place, including passwords for authorized BIDM users, at the time of Organizational Readiness training.

2.81.1.   Contractor Approach: The Contractor shall ensure all necessary BIDM system access is in place, including passwords for authorized BIDM users, at the time of Organizational Readiness training.

2.81.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.82.   Reference #3088: The Contractor shall assist the Department in identifying and developing information to be conveyed to authorized BIDM users as part of Organizational Readiness.

2.82.1.   Contractor Approach: The Contractor shall identify each user population and the business functions within each user group, based on information provided by the Department. The Contractor shall assist the Department in identifying and developing information to be conveyed to users as part of Organizational Readiness.

2.82.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.83.   Reference #3089: During the Organizational Readiness and Training Phase, the Contractor shall maintain and update the training environment with data to use during training.

2.83.1.   Contractor Approach: The Contractor shall maintain and update the training environment with data to use during training. The training facility shall be equipped with connections to training applications and supporting data.

2.83.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.84.   Reference #3090: The Contractor shall develop a Training Plan that meets the requirements of this Contract, to be reviewed annually and approved by the Department. The plan shall demonstrate

the commitment of the Contractor staff to meet the learning needs of the authorized BIDM users and include a proposed plan for face-to-face training on a mutually agreed upon schedule.

2.84.1.   The Training Plan shall include a Provider Transition Training Plan.

2.84.2.   The Training Plan shall be maintained as a free-standing deliverable separate from the Resource Management Plan unless otherwise approved by the Department.

2.84.3.   Contractor Approach: The Contractor shall submit a customized Training Plan to provide effective and targeted training to the Department. It shall design a plan and approaches to create an optimal level of user experience. Beginning with information gathered in RRV sessions, the Contractor shall develop a Training Plan using information gleaned from the BIDM implementation, industry best practices and from its experience.

2.84.4.   The Training Plan shall minimally include the following types of topics:

2.84.4.1.   Outlines and agendas for proposed training sessions.

2.84.4.2.   Descriptions of the professional background, skills, training experience, and subject matter knowledge of the proposed trainers.

2.84.4.3.   Examples of training materials.

2.84.4.4.   Descriptions of technology used to perform training responsibilities.

2.84.4.5.   Descriptions of training methodologies and presentation modes.

2.84.4.6.   Samples of evaluation criteria.

2.84.4.7.   Plans for the continuing education of existing users and new staff training.

2.84.4.8.   A Provider Transition Training Plan.

2.84.4.9.   A Contractor Staff Training Schedule.

2.84.5.   Deliverable: Training Plan

2.84.6.   Deliverable Stage: BIDM Implementation Contract Stage II

2.85.   Reference #3091: As part of testing and in conjunction with organizational readiness, the Contractor shall conduct structured acceptance testing training for authorized BIDM users per the Training Plan.

2.85.1.   Contractor Approach: The Contractor shall collaborate with the Department to ensure that UAT testers gain rapid mastery of BIDM tools and methods. Once UAT testers have mastered the basics, the Contractor shall provide these users with specialized and advanced training to help them fully utilize the applications and methodologies needed for UAT activities.

2.85.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.86.   Reference #3092: The Data Conversion Phase shall include migration of the Department's Recovery Tracking spreadsheet, referral list, suspension of payment, excluded/terminated provider list, tort and casualty database, case log into the Investigative Case Management tool.

2.86.1.   Contractor Approach: The Contractor shall migrate the Recovery Tracking spreadsheet, referral list, suspension of payment, excluded/terminated provider list, tort and casualty database, and case log into the Investigative Case Management tool.

2.86.2.   Requirement Stage: BIDM Implementation Contract Stage II

2.87. Reference #3093: The Contractor shall provide "Go-Live" Training for all authorized BIDM users as part of Organizational Readiness.

2.87.1. Contractor Approach: To equip the user community for the analytic and research capabilities that come with the new BIDM, the Training Plan shall direct a set of training sessions to enable users to master the new suite of tools. These training sessions shall represent "Go Live" training for the user community.

2.87.2. Requirement Stage: BIDM Implementation Contract Stage II

2.88. Reference #3094: During the Turnover Phase, the Contractor shall develop a System Turnover Plan at no additional cost to the Department.

2.88.1. The System Turnover Plan shall include, at minimum:

2.88.1.1. Proposed approach to Turnover.

2.88.1.2. Tasks and subtasks for Turnover.

2.88.1.3. Schedule for Turnover.

2.88.1.4. Entrance and exit criteria.

2.88.1.5. Readiness walkthrough process.

2.88.1.6. Documentation update procedures during Turnover.

2.88.1.7. Description of Contractor coordination activities that will occur during the Turnover Phase that will be implemented to ensure continued functionality of the BIDM and services as deemed appropriate by the Department.

2.88.2. Contractor Approach: The Contractor shall write and submit a System Turnover Plan for the Department to review and approve, at no additional cost to the Department. The Contractor shall maintain the System Turnover Plan in the project document management system.

2.88.3. Deliverable: System Turnover Plan

2.88.4. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.89. Reference #3095: During the Turnover Phase, the Contractor shall develop a System Requirements Statement at no additional cost that would be required by the Department or another designee to fully take over the BIDM, technical, and business functions outlined in the Contract.

2.89.1. The Statement shall also include an estimate of the number, type, and salary of personnel required to perform the other functions of the BIDM Services. The Statement shall be separated by type of activity of the personnel.

2.89.2. The Statement shall include all facilities and any other resources required to operate the BIDM, including, but not limited to:

2.89.2.1. Telecommunications networks.

2.89.2.2. Office space.

2.89.2.3. Hardware.

2.89.2.4. Software.

2.89.2.5. Other technology.

2.89.3.   The Statement shall be based on the Contractor's experience in the operation of the BIDM and shall include actual Contractor resources devoted to operations activities.

2.89.4.   Contractor Approach: The Contractor shall deliver the System Requirements Statement document to the Department for review and approval, at no additional cost to the Department. The Statement shall provide the type of information—based on Contractor's experience and assigned resources—the Department and successor contractor will need to plan for taking over the BIDM business, technical, and management responsibilities.

2.89.5.   Deliverable: System Requirements Statement

2.89.6.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

2.90.   Reference #3096: During the Turnover Phase, the Contractor shall provide a Lessons Learned document that describes the challenges and solutions faced during the COMMIT project.

2.90.1.   The Lessons Learned Document shall include suggestions for addressing challenges in addition to the solutions implemented, focusing on new suggestions and not on solutions that were rejected at the time the challenge was addressed.

2.90.2.   The Lessons Learned Document shall be complete and provided to the Department for review and approval at least three (3) months before the end of the initial term of the Contract. Department approval is required for completion of this requirement.

2.90.3.   Contractor Approach: The Contractor shall facilitate "Lessons Learned" meetings with Contractor staff and with Department-selected staff. Meetings shall focus on the challenges and implemented solutions addressed during the COMMIT project, with emphasis on the BIDM. The Contractor shall document this information in the Lessons Learned Document, which it shall submit to the Department at least three months prior to the end of the initial Contract term.

2.90.4.   Deliverable: Lessons Learned Document

2.90.5.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3. BIDM OPERATIONS

3.1.   Reference #3097: During the BIDM Operations Phase, the Contractor shall update Requirements Specifications for approved Change Requests and Rules Engine modifications and other BIDM changes, in accordance with the Configuration Management Plan.

3.1.1.   Contractor Approach: The Contractor shall maintain the Requirements Specification Document and the RTM throughout the term of the Contract. It shall update these requirements documents whenever it delivers an approved change to the system, rules engine, or other system change, and deliver the updated documentation for Department review and approval.

3.1.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.2.   Reference #3098: During the BIDM Operations Phase, the Contractor shall provide reports on BIDM Operation and Performance subject to Department approval in accordance with the System Operations and Maintenance Plan.

3.2.1.   Contractor Approach: The Contractor shall conduct system and service-performance monitoring and confirmation activities. It shall review these findings and measures in frequent meetings during the initial period following the onset of BIDM operations. It shall confirm and document that it has monitored Operations Checklist items and that they meet expectations, design specifications, and contracted service levels. The Contractor shall monitor and record these findings in Service Plan Workbooks over the life of the project. In addition, the Contractor shall

provide performance measures, Help Desk metrics, and System operations activities in monthly status reports.

3.2.2.   Deliverable: BIDM Operation and Performance Reports

3.2.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.3.   Reference #3099: The Contractor shall develop and provide Change Request forms, subject to Department approval.

3.3.1.   Contractor Approach: During operations, the Contractor shall continue to use the same Change Management Process that was approved, implemented and operated in the earlier project phases. It shall create and deliver change/modification requests with supporting documentation to the Department for review and approval.

3.3.2.   Deliverable: Change Request Forms

3.3.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.4.   Reference #3100: During the BIDM Operations Phase, the Contractor shall provide Updated Procedures and System Documentation, as needed.

3.4.1.   Contractor Approach: The Contractor shall maintain documentation and training materials to support ongoing production and education needs. To support this maintenance activity, the Department shall provide the Contractor with access to Department staff and ongoing training and documentation on Department policies, procedures, systems, and organization necessary to provide the Updated Procedures and System Documentation.

3.4.2.   Deliverable: Updated Procedures and System Documentation

3.4.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.5.   Reference #3101: During the BIDM Operations Phase, the Contractor shall develop and provide an Ongoing Support Maintenance Plan.

3.5.1.   Contractor Approach: The Contractor shall meet with the Department to determine the content of the Ongoing Support Maintenance Plan.

3.5.1.1.   The following topics may be included:

3.5.1.1.1.   A schedule of events, such as updates, upgrades, and off-hours maintenance windows.

3.5.1.1.2.   Incident, issue, and defect identification, tracking, and resolution processes.

3.5.1.1.3.   Security maintenance plans at the data warehouse/data mart and network, application, and user authorization levels.

3.5.1.1.4.   PHI, PII, and other client data security and user access procedures/methods.

3.5.1.1.5.   User authorization and user account maintenance processes.

3.5.1.2.   The Contractor shall develop and deliver the System Operations and Maintenance Plan to the Department for review and approval. Periodically, at least annually, it shall collaborate with the Department to determine if any updates are necessary.

3.5.2.   Deliverable: Ongoing Support Maintenance Plan

3.5.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.6.   Reference #3102: During the Implementation and Start of Operations Phase, the Contractor shall provide attestation to the Department that the BIDM is operation-ready. The Contractor is not

required to use an independent third party company to perform this attestation, but may do so at its own expense.

3.6.1. Contractor Approach: The Contractor shall begin BIDM operations when it has completed DDI activities and the Department gives it formal approval to begin the Operations Phases. To support the Department's implementation approval decision, the Contractor shall deliver an attestation letter to the Department that includes the results of Implementation Checklists, completion metrics from the Implementation Project Work Plan, and implementation issue status from the Issues Management System. Once the Department has determined that the Contractor has successfully completed implementation activities, it shall formally approve the attestation letter without undue delay.

3.6.2. Deliverable: Attestation that the BIDM is Operation-Ready

3.6.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.7. Reference #3103: During the Operational Readiness Phase, the Contractor shall develop and document the Contractor's operating procedures relative to this Contract in accordance with the Communication Management Plan.

3.7.1. Contractor Approach: The Contractor shall update and submit the BIDM Operating Procedures Document to the Department during the Operations Readiness Phase for review and approval. It shall present this document in the format defined in the Communications Management Plan.

3.7.2. Deliverable: Documented Operating Procedures

3.7.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.8. Reference #3104: During the Operational Readiness Phase, the Contractor shall develop a Department Operational Readiness Training Plan and conduct training for all users at the appropriate authorized BIDM user level in order to ensure preparedness for operations.

3.8.1. Contractor Approach: After interviewing and conducting sessions with the Department subject matter experts and stakeholders, the Contractor shall prepare a list of the Department's training and readiness expectations and requirements for operations readiness training and for systems rollout. The Operational Readiness Training Plan shall focus specifically on rollout and readiness training. During the Operational Readiness Phase, the Contractor shall develop and submit this plan for the Department's review and approval.

3.8.2. Deliverable: Department Operational Readiness Training Plan and Completed Trainings

3.8.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.9. Reference #3105: During the Operational Readiness Phase, the Contractor shall prepare a final Operational Readiness Assessment Document, including results of the parallel test and an assessment of the final operational readiness of Contractor.

3.9.1. Contractor Approach: The Contractor shall prepare the final Operational Readiness Assessment Document to record the results of the operations readiness assessment and the parallel test after both events are completed. The Contractor shall submit this document to the Department for review and approval using the same protocols as with previous deliverables. Once approved, this document shall be retained within the document management system environment.

3.9.2. Deliverable: Operational Readiness Assessment Document

3.9.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.10.   Reference #3106: The Contractor shall provide a BIDM training program that coordinates and implements the roll-out, delivery, publication and distribution of all BIDM training materials.

3.10.1.   Contractor Approach: After interviewing Department staff and stakeholders, the Contractor shall prepare a list of the Department's training and readiness expectations and requirements for operations readiness training. The Contractor shall collaborate with the Department to determine a mutually acceptable training schedule for these training components and identify the authorized trainees. These designated personnel shall receive the operational readiness training and/or systems training to help them participate effectively in operational readiness activities and/or systems maintenance duties.

3.10.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

3.11.   Reference #3107: The Contractor shall develop and deliver a comprehensive training program at the authorized BIDM user level to support the rollout of the BIDM.

3.11.1.   Contractor Approach: The Contractor shall develop and deliver a comprehensive training program at the authorized BIDM user level to support the rollout of the BIDM. These designated personnel shall receive user-level training to help them participate effectively in operational readiness activities.

3.11.2.   Requirement Stage: BIDM Implementation Contract Stage II

3.12.   Reference #3108: As part of organizational readiness preparation, the Contractor shall schedule and conduct interviews and sessions with Department's subject matter experts (SMEs) and stakeholders, as required, to clarify the training and readiness expectations and requirements.

3.12.1.   Contractor Approach: The Contractor shall schedule and conduct interviews and sessions with Department's SMEs and stakeholders, as required, to clarify the training and readiness expectations and requirements.

3.12.2.   Requirement Stage: BIDM Implementation Contract Stage II

3.13.   Reference #3109: During the Parallel Testing Phase, the Contractor shall establish a Parallel Test Plan that describes the Contractor's approach to conducting the parallel test.

3.13.1.   The Parallel Test Plan shall include, at minimum, all of the following:

3.13.1.1.   Role and responsibilities.

3.13.1.2.   Proposed activities and procedures.

3.13.1.3.   Proposed timeline.

3.13.1.4.   Proposed reporting structure.

3.13.1.5.   Supporting tools and documentation to support the Parallel Test.

3.13.2.   Contractor Approach: The Contractor shall develop and submit the Parallel Test Plan for the Department's approval.

3.13.2.1.   The Parallel Test Plan shall minimally include the following topics:

3.13.2.1.1.   The purpose of the test plan.

3.13.2.1.2.   The test approach.

3.13.2.1.3.   Processes to verify the BIDM data to the source data at the same time.

3.13.2.1.4.   Processes for resolving any differences.

3.13.2.1.5.   Roles and responsibilities.

3.13.2.1.6.   A proposed timeline of activities.

3.13.2.1.7.   Test procedures and activities.

3.13.3.   Deliverable: Parallel Test Plan

3.13.4.   Deliverable Stage: BIDM Implementation Contract Stage II

3.14.   Reference #3110: During the Parallel Testing Phase, the Contractor shall perform parallel test of the BIDM with input from the incumbent contractor's operations and report test results to the Department.

3.14.1.   Contractor Approach: The Contractor shall perform parallel testing against the incumbent contractors' source data to determine the BIDM data integrity and to report the parallel test results. The Contractor shall document and submit its Parallel Test Plan to the Department for review and approval prior to conducting the tests.

3.14.1.1.   The Contractor shall perform thorough parallel testing against matching data from parallel systems' source data. The Contractor shall partner with data suppliers to perform parallel testing against the same data to confirm that when it runs the same query against the same data, consistent results are produced. If there are unexpected results or errors, the Contractor shall resolve issues and rerun the process/query. In the event that the Contractor is unable to resolve a data source problem with a data supplier, the Department will assist the Contractor in obtaining a resolution with that data supplier. When the results are produced and finalized, the Contractor shall provide the Parallel Test Results to the Department. The Contractor shall employ its test management system to document requirements and test cases, record test results, and deliver results reports.

3.14.2.   Requirement Stage: BIDM Implementation Contract Stage II

3.15.   Reference #3111: During the Parallel Testing Phase, The Contractor shall revise systems and user documentation as required to fully describe the Contractor's operations.

3.15.1.   Contractor Approach: The Contractor shall update user, system, and operations documentation. The Contractor shall submit these updated documents to the Department during the Parallel Testing Phase and develop the documents as mutually agreed upon in the Communication Management Plan.   The Contractor shall also review and update applicable product documentation if changes—such as enhancements or version upgrades—necessitate the update.

3.15.2.   Requirement Stage: BIDM Implementation Contract Stage II

3.16.   Reference #3112: During the Transition Planning Phase, the Contractor shall develop and submit a Transition Plan.

3.16.1.   The Transition Plan shall include, at minimum, all of the following:

3.16.1.1.   Proposed approach to transition.

3.16.1.2.   Proposed approach for conducting a knowledge transfer from the incumbent Contractors to the new contractor.

3.16.1.3.   Proposed approach for consolidating applicable sections from the incumbent contractors' turnover plan into the transition planning activity.

3.16.1.4.   Tasks and activities for transition.

3.16.1.5.	Personnel and level of effort in hours.

3.16.1.6.	Completion date.

3.16.1.7.	Transition Milestones.

3.16.1.8.	Entrance and exit criteria.

3.16.1.9.	Schedule for transition.

3.16.1.10.	Production program and documentation update procedures during transition.

3.16.1.11.	Readiness walkthrough.

3.16.1.12.	Parallel test procedures.

3.16.1.13.	Authorized user training.

3.16.1.14.	Interface testing.

3.16.2.	Contractor Approach: The Contractor shall prepare the Transition Plan, which shall include the key elements for the transition of the legacy MMIS data from the legacy MMIS Contractor to the Contractor. The Transition Plan will document, at a minimum, the timeline, tasks, milestones, and deliverables associated with a smooth transition.

3.16.3.	Deliverable: Transition Plan

3.16.4.	Deliverable Stage: BIDM Implementation Contract Stage II

3.17.	Reference #3113: During the Transition Planning Phase, the Contractor shall develop and submit a Relocation Risk/Contingency Plan.

3.17.1.	The Relocation Risk/Contingency Plan shall include:

3.17.1.1.	Proposed approach to Contractor relocation risk/contingency planning.

3.17.1.2.	Risk analysis: identification of critical business processes.

3.17.1.3.	Risk analysis: identification of potential failures.

3.17.1.4.	Risk analysis: business impacts.

3.17.1.5.	Identification of alternatives/contingencies.

3.17.2.	Contractor Approach: The Contractor shall collaborate with the Department to develop and submit a Relocation Risk/Contingency Plan in the event that the extraction and loading of the legacy MMIS data and other data sources fails. Together the parties will determine the potential risks and the possible mitigation activities that can be used to reasonably ensure that legacy data and artifacts are accurately captured and retained. This requirement shall be fulfilled in the Business Continuity and Disaster Recovery Plan.

3.17.3.	Deliverable: Relocation Risk/Contingency Plan

3.17.4.	Deliverable Stage: BIDM Implementation Contract Stage II

3.18.	Reference #3114: The Contractor shall execute the Transition Plan and activities at no additional cost to the Department or increase in the price of the Contract.

3.18.1.	Contractor Approach: The Contractor shall execute the Transition Plan and activities at no additional cost to the Department or increase in the price of the Contract.

3.18.2.	Requirement Stage: BIDM Implementation Contract Stage II

3.19.   Reference #3115: During the Operational Readiness Phase, the Contractor shall conduct a formal Operational Readiness Plan Walkthrough with the Department, demonstrating that all operational areas are ready.

3.19.1.   Contractor Approach: The Contractor shall lead the Department through the approved Operational Readiness Plan. The Contractor shall walk the Department through each step of the plan and validate each task or deliverable in the Operational Readiness Checklist. The Contractor shall provide pre-determined reports and documentation to validate checklist deliverables. The Contractor shall describe processes, expected outcomes, deliverables, methods, and tools to validate the BIDM Operational Readiness requirements.

3.19.2.   Requirement Stage: BIDM Implementation Contract Stage II

4. CONTRACT PERFORMANCE STANDARDS AND QUALITY MAINTENANCE PAYMENTS

4.1.   Reference #3116: The Contractor shall report, per the Communication Management Plan, on all performance standards as specified in the Contract.

4.1.1.   Contractor Approach: Contractor shall report, per the Communication Management Plan, on all performance standards, as specified in Exhibits E and G of the Contract.

4.1.2.   Requirement Stage: All Contract Stages

5. LOCATION OF CONTRACT FUNCTIONS AND PERSONNEL

5.1.   Reference #3117: The Contractor shall maintain a local facility that must be located within walking distance, a one- (1-) mile radius of the Department, and accessible by public transportation, in a location approved by the Department.

5.1.1.   Contractor Approach: Contractor shall perform DDI and Operations activities from a facility specifically for the BIDM project. This facility shall be located within walking distance, a one-mile radius of the Department, and shall be accessible by public transportation. This facility shall be submitted to the Department for its review and approval. Prior to this facility's move-in date, the Contractor shall provide temporary workspace for Contractor and Department employees beginning on the Effective Date of the project, within the one- (1-) mile radius.

5.1.2.   Requirement Stage: BIDM Implementation Contract Stage II

5.2.   Reference #3118: The Contractor shall have normal business hours, Monday through Friday, from 8:00 am to 5:00 pm Mountain Time (MT), each Business Day.

5.2.1.   Contractor Approach: Contractor shall maintain normal business hours, Monday through Friday, from 8:00 am to 5:00 pm MT, each Business Day.

5.2.2.   Requirement Stage: BIDM Implementation Contract Stage II

5.3.   Reference #3119: The Contractor shall supply sufficient meeting space at its local facility, which includes at least two (2) conference rooms that can hold at least ten (10) people, at the Contractor's facility.

5.3.1.   These Conference Rooms shall have secure Wi-Fi access. The Wi-Fi shall provide enough bandwidth to allow, and provide no security limitations that would prevent, the Department's Staff to connect into a Virtual Private Network (VPN) from their State-issued laptops into the Department's network.

5.3.2.   Contractor Approach: Contractor shall provide space that includes one large conference room (16-20 seats), six medium conference rooms (8-10 seats) and four small conference rooms (4-6

seats). The facility shall support secured Wi-Fi access for authorized Department and Contractor users and will offer sufficient bandwidth for all staff to connect into a VPN from their laptops.

5.3.3. Requirement Stage: BIDM Implementation Contract Stage II

5.4. Reference #3120: To create greater coordination between Contractor's Key Personnel and Non-Key Personnel, the Contractor shall provide a local facility that allow Department staff that use the BIDM to co-locate with the Contractor's staff during the BIDM Ongoing Operations and Enhancement Contract Stage.

5.4.1. The following space requirement shall be provided to accommodate the Department staff, which are in addition to any other space requirements in the Contract, such as the training room:

5.4.1.1. The Department has fifty (50) staff that will locate with the Contractor over the length of the Contract starting with the effective date of the BIDM Ongoing Operations and Enhancements Contract Stage.

5.4.1.2. At minimum, 10,500 square feet of office space for the fifty (50) Department staff. This is in addition to the space the Contractor provides for the Contractor's own staff.

5.4.1.3. Two additional conference rooms, in addition to the 10,500 square feet of space and the two conference rooms required under Reference #3119, that will accommodate at least ten (10) people for use by Department staff. The two conference rooms can be jointly used by both the Contractor and Department staff, but priority in scheduling meetings in these two conference rooms shall be determined by the Department.

5.4.1.3.1. The Department will be responsible for providing cubes and all office furniture within the 10,500 square feet of office space for Department staff and the two conference rooms. The Department will work jointly with the Contractor to create uniformity in the office space, including the size of offices and cubes between the Contractor's staff and the Department's staff.

5.4.1.3.2. The Department will be responsible for providing parking spaces for Department staff.

5.4.2. Contractor Approach: Contractor shall provide local space for Contractor staff and fifty (50) Department staff. This space shall allow Department staff to co-locate with the Contractor's staff during the BIDM Ongoing Operations and Enhancement Contract Stage. The space will minimally reserve 10,500 square feet for the Department's use, as well as two medium conference rooms to accommodate at least ten (10) people where the Department has scheduling priority. This space shall be in addition to space provided for Contractor's own staff. Contractor shall work jointly with the Department to ensure uniformity in the workspace, including the size of offices and cubicles for Department and Contractor staff.

5.4.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

5.5. Reference #3121: To create greater coordination between Contractor's Key Personnel and Non-Key Personnel, the Contractor shall provide a local facility that allow Department staff that use the BIDM to co-locate with the Contractor's staff during the BIDM Implementation Contract Stage I and BIDM Implementation Contract Stage II.

5.5.1. The following space requirement shall be provided to accommodate the Department staff, which are in addition to any other space requirements in the Contract, such as the training room:

5.5.1.1.   The Department has at least ten (10) staff that will locate with the Contractor over the length of the Contract starting with the effective date of the BIDM Implementation Contract Stage I and BIDM Implementation Contract Stage II.

5.5.2.   Contractor Approach: Contractor shall provide local space, within one (1) mile of the Department for the Contractor's staff and shall accommodate between ten (10) and fifty (50) Department staff to co-locate with Contractor's staff during the BIDM Implementation Contract Stage I and BIDM Implementation Contract Stage II.

5.5.3.   Requirement Stage: BIDM Implementation Contract Stage I

5.6.   Reference #3122: THIS REQUIREMENT INTENTIONALLY DELETED

6. KEY PERSONNEL

6.1.   Reference #3123: Key Personnel named shall all meet minimum qualifications in this section unless an exception is granted by the Department.

6.1.1.   The minimum qualifications are as follows:

6.1.1.1.   College degree in related field, preferably a Bachelor's degree or higher.

6.1.1.2.   At least five (5) years of experience in the particular named service, such as account management, compliance management or systems management, preferably within in the health care industry.

6.1.1.3.   Demonstrated at least two (2) years of professional experience and knowledge of industry standard and best practices regarding large-scale and enterprise-level projects.

6.1.2.   Contractor Approach: Contractor shall provide Key Personnel that meet or exceed the minimum qualifications. Unless an exception is provided by the Department, all Key Personnel shall have a college degree in a related field and shall have at least five (5) years of healthcare experience in the roles for which they have been selected and in the particular named service – account management, compliance management, systems management.   In addition, all of the Contractor's Key Personnel shall meet or exceed the minimum qualifications with at least two (2) years of professional experience and knowledge of industry standards and best practices regarding large-scale and enterprise-level projects.

6.1.3.   Requirement Stage: BIDM Implementation Contract Stage II

6.2.   Reference #3124: The Contractor shall identify and provide resumes for proposed Key Personnel who will be available for Work under the Contract.

6.2.1.   Key Personnel are subject to both initial and ongoing approval of the Department. Any substitutions shall not be assigned to perform Work under the Contract without the prior approval by the Department.

6.2.2.   Key Personnel include:

6.2.2.1.   Account Manager

6.2.2.2.   Analytics Manager

6.2.2.3.   DDI Manager

6.2.2.4.   Operational Transition and Readiness Project Manager

6.2.2.5.   Operations Manager

6.2.2.6.   Compliance and Security Manager

6.2.2.7.   Systems Manager

6.2.3.   Other Key Personnel may be identified by the Contractor with Department approval.

6.2.4.   Key Personnel shall be accessible to key Department personnel at all times.

6.2.5.   Key personnel performance will be evaluated by the Contractor and Department annually.

6.2.6.   Key Personnel shall be dedicated to the Contract and COMMIT project full-time during the term of the Contract unless noted otherwise in this Contract.

6.2.6.1.   Contractor Approach: Contractor shall identify and provide resumes for proposed Key Personnel which include Account Manager, Analytics Manager, DDI Manager, Operational Transition and Readiness Project Manager, Operations Manager, Compliance and Security Manager, and Systems Manager. Key Personnel shall be accessible to key Department personnel at all times and shall be subject to both initial and ongoing approval of the Department. Any substitutions shall not be assigned to perform Work under the Contract without the prior approval by the Department. Key Personnel shall be dedicated to the Contract and COMMIT project full-time during the term of the Contract unless noted otherwise in this Contract.

6.2.7.   Requirement Stage: BIDM Implementation Contract Stage II

6.3.   Reference #3125: During BIDM Implementation Contract Stages, the Contractor shall ensure that specified Key Personnel are located on-site at the Contractor's local facility and readily available to the Department.

6.3.1.   These specified Key Personnel shall include all of the following:

6.3.1.1.   Analytics Manager

6.3.1.2.   DDI Manager, if the Contractor's staff performing DDI activities are located at the Contractor's local facility and readily available to the Department

6.3.1.3.   Operational Transition and Readiness Project Manager. This position is excluded from this requirement in BIDM Implementation Contract Stage III.

6.3.1.4.   Operations Manager

6.3.1.5.   Systems Manager

6.3.2.   Contractor Approach: Contractor shall ensure the following Key Personnel are readily available to the Department and are located as on-site employees at Contractor's local facility in Colorado:

6.3.2.1.   Account Manager.

6.3.2.2.   Analytics Manager.

6.3.2.3.   DDI Manager.

6.3.2.4.   Operational Transition and Readiness Project Manager.

6.3.2.5.   Operations Manager.

6.3.2.6.   Systems Manager.

6.3.3.   Requirement Stage: BIDM Implementation Contract Stage II

6.4.   Reference #3126: During BIDM Implementation Contract Stages, the Contractor shall ensure that specified Key Personnel are readily available to the Department.

6.4.1.   These specified Key Personnel shall include all of the following:

6.4.1.1.   Account Manager

6.4.1.2.   DDI Manager

6.4.1.3.   Compliance and Security Manager

6.4.2.   Contractor Approach: Contractor shall ensure that the following Key Personnel are readily available to the Department:

6.4.2.1.   Account Manager.

6.4.2.2.   DDI Manager.

6.4.2.3.   Compliance and Security Manager.

6.4.3.   Requirement Stage: BIDM Implementation Contract Stage II

6.5.   Reference #3127: During BIDM Ongoing Operations and Enhancements Contract Stage, the Contractor shall ensure that the specified Key Personnel are located on-site at the local Contractor's Facility and readily available to the Department.

6.5.1.   These specified Key Personnel shall include all of the following:

6.5.1.1.   Analytics Manager

6.5.1.2.   Operations Manager

6.5.1.3.   Systems Manager

6.5.2.   These specified Key Personnel shall be committed to the Contract full-time.

6.5.3.   Contractor Approach: During the BIDM ongoing Operations and Enhancements Contract Stage, Contractor shall ensure the following Key Personnel are located on-site at the local Contractor's facility and readily available to the Department:

6.5.3.1.   Account Manager.

6.5.3.2.   Analytics Manager.

6.5.3.3.   Operations Manager.

6.5.3.4.   Systems Manager.

6.5.4.   These specified Key Personnel shall be committed to the Contract full-time.

6.5.5.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

6.6.   Reference #3128: During BIDM Ongoing Operations and Enhancements Contract Stage, the Contractor shall ensure that specified Key Personnel are readily available to the Department.

6.6.1.   These specified Key Personnel shall include all of the following:

6.6.1.1.   Account Manager

6.6.1.2.   Compliance and Security Manager

6.6.2.   These specified Key Personnel are not required to be committed to the Contract full-time.

6.6.3.   Contractor Approach: During the BIDM ongoing Operations and Enhancements Contract Stage, Contractor shall ensure that specified Key Personnel are readily available to the Department:

6.6.3.1.   Account Manager.

6.6.3.2.   Compliance and Security Manager.

6.6.3.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

6.7.   Reference #3129: The Contractor shall provide an Account Manager for all Contract Stages.

6.7.1.   The Account Manager shall serve as the Contractor's primary point of contact to maintain communication with the Department for activities related to contract administration, project management and scheduling, correspondence between the Department and Contractor, and status reporting to the Department.

6.7.2.   The Account Manager shall be in place at the Effective Date.

6.7.3.   Contractor Approach: Contractor shall provide an Account Manager for all Contract Stages who shall serve as the Contractor's primary point of contact to maintain communication with the Department for activities related to contract administration, project management and scheduling, correspondence between the Department and Contractor, and status reporting to the Department. The Account Manager shall be in place at the Effective Date.

6.7.4.   Requirement Stage: BIDM Implementation Contract Stage II

6.8.   Reference #3130: The Contractor shall provide an Analytics Manager for all Contract Stages.

6.8.1.   The Analytics Manager shall do all of the following:

6.8.1.1.   Manage activities related to the coordination, execution and supervision of business intelligence and analytics, including Contractor resource allocation, for services provided to the Department.

6.8.1.2.   Manage activities related to reporting including design, development, production, documentation, and quality.

6.8.1.3.   In cooperation with the Department, be actively involved in the transition of legacy reports and queries, such as Management Administrative Reports, SDAC and Department-specific reports, to the BIDM.

6.8.1.4.   Assist in the development of new algorithms, analytics, and measures to advance the Department's analytical aptitude in the fields of rate setting; population health care measures; determinants of quality and cost effective health care; identifying patterns and relationships in fraud, waste, and abuse; predictive modeling; and changes in provider billing patterns that may occur in response to policy or billing changes in the Medical Assistance Program, Medicare, or other payers.

6.8.1.5.   In cooperation with the Department, develop and implement new quality measures and evaluate and modify existing quality measures to meet the Department's evolving needs.

6.8.1.6.   Be dedicated to the Contract full-time.

6.8.2.   Contractor Approach: Contractor shall provide an Analytics Manager, who is dedicated to the Contract full time, for all Contract Stages.

6.8.2.1.   The Analytics Manager shall do all of the following:

6.8.2.1.1.   Manage activities related to the coordination, execution and supervision of business intelligence and analytics, including Contractor resource allocation, for services provided to the Department.

6.8.2.1.2.   Manage activities related to reporting including design, development, production, documentation, and quality.

6.8.2.1.3.   In cooperation with the Department, be actively involved in the transition of legacy reports and queries, such as Management Administrative Reports, SDAC and Department-specific reports, to the BIDM.

6.8.2.1.4.   Assist in the development of new algorithms, analytics, and measures to advance the Department's analytical aptitude in the fields of rate setting; population health care measures; determinants of quality and cost effective health care; identifying patterns and relationships in fraud, waste, and abuse; predictive modeling; and changes in provider billing patterns that may occur in response to policy or billing changes in the Medical Assistance Program, Medicare, or other payers.

6.8.2.1.5.   In cooperation with the Department, develop and implement new quality measures and evaluate and modify existing quality measures to meet the Department's evolving needs.

6.8.3.   Requirement Stage: BIDM Implementation Contract Stage II

6.9.   Reference #3131: The Contractor's Analytics Manager may work on independent projects, research, or analysis that are related to Work under the Contract without authorization through the Change Management Process. However, all required Non-Key Personnel, such as Analytics Staff, Operations Staff and System/Interface Staff, are not authorized to perform independent research.

6.9.1.   The Analytics Manager shall perform ad hoc research and analytics related to Work under the Contract, which may involve trial and error or time consuming duties. The Analytics Staff shall not assist in these research endeavors. If the Analytics Manager desires a research assistant or other analysts to assist in independent projects, those staff shall not include the staff listed in Exhibit A.

6.9.2.   There is no requirement that the Analytics Manager supervise the Analytics Staff.

6.9.3.   Contractor Approach: The Contractor may empower the Analytics Manager to work on independent projects, research, or analytics that are related to Work under the Contract without authorization through the Change Management Process. However, Contractor shall ensure all required Non-Key Personnel, such as Analytics Staff, Operations Staff, and System/Interface Staff, are not authorized to perform independent research. In addition, the Analytics Manager shall be empowered to perform ad hoc research and analytics related to Work under the Contract, which may involve trial and error or time consuming duties. The Analytics Staff shall not assist in these endeavors; however, if the Analytics Manager desires a research assistant or other analyst to assist in independent projects, a corresponding Contract Amendment or Option Letter would be issued to specify the increase in work with a corresponding increase in payment to Contractor.

6.9.4.   Requirement Stage: BIDM Implementation Contract Stage II

6.10.   Reference #3132: The Contractor shall provide a DDI Manager for BIDM Implementation Contract Stages. The DDI Manager manages activities related to the Contractor's resources, Deliverable reviews, system development and testing activities during these Contract Stages. The DDI Manager shall be dedicated to the Contract full-time during these Contract Stages.

6.10.1.   The DDI Manager shall be in place at the Effective Date.

6.10.2.   Contractor Approach: The Contractor shall provide a full-time dedicated DDI Manager for BIDM Implementation Contract Stages and shall be in place at the Effective Date. The DDI Manager shall manage activities related to the Contractor's resources, deliverable reviews, system development and testing activities during these Contract Stages.

6.10.3.   Requirement Stage: BIDM Implementation Contract Stage I

6.11.   Reference #3133: The Contractor shall provide a Systems Manager for all Contract Stages. The Systems Manager coordinates Customization and Configuration of the BIDM. The Systems Manager will act as the primary contact for gathering and implementing requirements related to the BIDM. The Systems Manager will be responsible for ensuring the BIDM is operational and that it fulfills all Contract requirements. The Systems Manager shall be dedicated to the Contract full-time.

6.11.1.   The Systems Manager shall be in place at the Effective Date.

6.11.2.   Contractor Approach: The Contractor shall provide a full-time dedicated Systems Manager for all BIDM Contract stages and shall be in place at the Effective Date. The Systems Manager shall coordinate the customization and configuration of the BIDM. The Systems Manager shall act as the primary contact for gathering and implementing requirements related to the BIDM. The Systems Manager shall be responsible for ensuring the BIDM is operational and that it fulfills all Contract requirements.

6.11.3.   Requirement Stage: BIDM Implementation Phase I

6.12.   Reference #3134: The Contractor shall provide a Compliance and Security Manager for all Contract Stages.

6.12.1.   The Compliance and Security Manager shall do all of the following:

6.12.1.1.   Provide proactive analysis and options for system and operations changes to implement regulatory authority from CMS regarding the BIDM.

6.12.1.2.   Be responsible for contacting the Department when new CMS rules (draft and final) are released, organizing meetings to present the rules and help to provide comment for CMS and propose solutions to implement the rules in the BIDM.

6.12.1.3.   Focus on any rule that impacts system Operations and assist the Department in preparing Fiscal Notes to proposed State legislation.

6.12.1.4.   Be responsible for implementing all security measures necessary to comply with HIPAA, the Department's Safe Harbor protocols, and all other federal and State regulations.

6.12.2.   The Compliance and Security Manager shall be in place at the Effective Date and shall coordinate on a regular basis with the Core MMIS Contractor's Compliance Manager

6.12.3.   The Compliance and Security Manager role may be provided by two individuals each working part-time to fulfill the fulltime equivalent of a single individual.

6.12.4.   Contractor Approach: Contractor shall provide a Compliance and Security Manager which will be in place at the Effective Date. This role may be provided by two of Contractor's staff working part-time to fulfill the full time equivalent of a single individual. The Contractor shall ensure the Compliance and Security Manager coordinates on a regular basis with the Core MMIS Contractor's Compliance Manager.

6.12.5.   Requirement Stage: BIDM Implementation Contract Stage I

6.13.   Reference #3135: The Contractor shall provide an Operations Manager for all Contract Stages.

6.13.1.   The Operations Manager shall do all of the following:

6.13.1.1.   Manages all operations activities encompassed in the Contract.

6.13.1.2.   Oversee Contractor operations and maintenance staff.

6.13.1.3.   Assist the Department's Project and Contract Manager(s) with Contract monitoring ensure that Contract responsibilities and performance standards are met.

6.13.1.4.   Develop operational policies and procedures to ensure timely and accurate reporting deliverables.

6.13.1.5.   Communicate deliverable project timelines and potential risks.

6.13.1.6.   Coordinate transfer of data and deliverables between the BIDM and other vendors, providers, or other State agencies.

6.13.1.7.   Provides for adequate training, user support, and Help Desk functions.

6.13.1.8.   Be dedicated to the Contract full-time.

6.13.2.   The Operations Manager shall be in place at the Effective Date.

6.13.3.   Contractor Approach: Contractor shall provide an Operations Manager which shall be dedicated to the Contract full-time and in place at the Contract effective date.

6.13.4.   Requirement Stage: BIDM Implementation Contract Stage II

6.14.   Reference #3136: The Contractor shall provide an Operational Transition and Readiness Project Manager for BIDM Implementation Contract Stage I and BIDM Implementation Contract Stage II.

6.14.1.   The Operational Transition and Readiness Project Manager shall do the following:

6.14.1.1.   Be responsible for activities related to, Contractor resources for, and Deliverable reviews during BIDM Implementation Contract Stage I and BIDM Implementation Contract Stage II.

6.14.1.2.   Be responsible for monitoring and reporting activities regarding system operations, and State readiness throughout the Project Phases as it relates to implementation of requirements pertaining to BIDM Implementation Contract Stage I and BIDM Implementation Contract Stage II.

6.14.1.3.   Be dedicated to the Contract full-time during these Contract Stages.

6.14.2.   The Operational Transition and Readiness Project Manager shall be in place at the Contract effective date.

6.14.3.   Contractor Approach: Contractor shall provide an Operational Transition and Readiness Project Manager for BIDM Implementation Contract Stage I and BIDM Implementation Contract Stage II. The Operational Transition and Readiness Project Manager shall be dedicated to the Contract full-time during BIDM Contract Stages I and II and shall be in place as of the Contract effective date.

6.14.4.   Requirement Stage: BIDM Implementation Contract Stage I

7. NON-KEY PERSONNEL

7.1.   Reference #3137: The Contractor shall provide sufficient resources to support architecture and design activities to ensure that the BIDM and supporting technical and business operations are successful. The Contractor shall update and maintain the architecture and design to ensure that the Department and its stakeholders' business activities relying on the BIDM are not interrupted.

7.1.1.   The Contractor shall fulfill this requirement through Work performed by Non-Key Personnel.

7.1.2.   Contractor Approach: The Contractor shall provide sufficient resources to support Key and Non-Key personnel with architecture and design activities. Roles such as Testing/validation, business analyst, technical writing/documentation, project management, administrative, and/or other System Interface and/or Operations roles shall be deployed.

7.1.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

7.2.   Reference #3138: Non-Key Personnel shall, at minimum, possess specific qualifications unless an exception is granted by the Department.

7.2.1.   These qualifications shall include the following:

7.2.1.1.   College degree in related field, a Bachelors degree or above is preferred.

7.2.1.2.   At least two (2) years of experience in the particular named service, such as analytics, operations or system/interfaces, preferably within in the health care industry.

7.2.2.   Contractor Approach: The Contractor shall provide Non-Key Personnel that meet or exceed the minimum qualifications. Unless an exception is provided by the Department, all Non-Key Personnel shall have a College degree in a related field and at least two (2) years of experience in the roles for which they have been selected in the particular named service.

7.2.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

7.3.   Reference #3139: The Contractor shall provide sufficient staff to meet all requirements of the Contract.

7.3.1.   At minimum, the Contractor shall provide Non-Key Personnel as follows:

7.3.1.1.   Eight (8) Analytics Staff

7.3.1.2.   Five (5) Operations Staff

7.3.1.3.   Five (5) Systems/Interface Staff

7.3.2.   Non-Key Personnel staff shall be assigned to perform the Work described under the Contract or shall be authorized to perform duties through Change Management Process.

7.3.3.   Contractor Approach: The Contractor shall provide sufficient staff to meet all requirements of the Contract and at a minimum will provide the following Non-Key Staff:

7.3.3.1.   Eight (8) Analytics Staff.

7.3.3.2.   Five (5) Operations Staff.

7.3.3.3.   Five (5) Systems/Interface Staff.

7.3.4.   The Contractor shall assign Contractor's staff to perform the Work described under the Contract or shall be authorized to perform duties through the Change Management Process.

7.3.5.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

7.4. Reference #3140: The Contractor shall provide the analytic functionality, personnel, and resources necessary for both automated and manual sampling for any data, including, but not limited to, sampling frame, sample, and definition of sample parameters. This includes random sampling, stratified sampling, systematic sampling, cluster sampling, and over sampling for all types of data in the BIDM.

7.4.1. The Contractor shall fulfill this requirement through Work performed by Non-Key Personnel.

7.4.2. Contractor Approach: The Contractor shall provide the analytic functionality, personnel and resources necessary to support automated and manual sampling including but not limited to random sampling, stratified sampling, systematic sampling, cluster sampling and over sampling for all types of data in the BIDM. The Contractor shall fulfill this requirement through Work performed by Non-Key Personnel.

7.4.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

7.5. Reference #3141: The Contractor shall provide sufficient staff to meet all requirements of the Contract.

7.5.1. The Contractor shall provide qualified staff to support Key Personnel and Non-Key Personnel as follows:

7.5.1.1. Testing and Validation Staff.

7.5.1.2. Business Analyst Staff.

7.5.1.3. Technical Writing and System Documentation Staff.

7.5.1.4. Project Management Staff.

7.5.1.5. Administrative Support Staff.

7.5.1.6. Other, Non-Specified Staff.

7.5.2. The Contractor shall increase staffing levels if requirements or standards are not being met at no additional cost to the Department.

7.5.3. Contractor Approach: The Contractor shall provide additional support staff to perform Contract work including data management and analytical testing/validation/support, Business Analysts, technical writing and system documentation, project management, administrative, and other staff to meet all of the Contract requirements.

7.5.4. Requirement Stage: BIDM Implementation Contract Stage II

7.6. Reference #3142: The Contractor shall maintain adequate Analytics Staff.

7.6.1. The Contractor shall maintain Analytics Staff necessary to perform the following functions, including but not limited to:

7.6.1.1. Work collaboratively with the Department to develop and implement provider performance metrics, such as cost, utilization and quality measures, for specific populations and Department programs.

7.6.1.2. Evaluate credibility and efficacy of individual measures and baseline comparisons and recommend improvements to performance measurements where appropriate.

7.6.1.3. Work collaboratively with the Department to develop analytics for a multitude of Department-defined payment reform activities, such as provider incentive payment programs, provider shared savings models, etc.

7.6.1.4.   Assist in explaining and documenting reports to the Department and its stakeholders.

7.6.1.5.   Attend stakeholder meetings, such as provider meetings, to communicate results of analyses.

7.6.1.6.   Investigate data anomalies in query, reporting, and analysis.

7.6.1.7.   Provide industry-best practice analytics on behalf of the Department, including, and not limited to: predictive modeling, creation of client Risk Scores, performance monitoring and benchmarking, evaluating utilization variances between providers, and creating provider profiles.

7.6.1.8.   Building advance reporting capabilities that will include both ad hoc and a standard library of reports.

7.6.2.   Contractor Approach: The Contractor shall maintain the minimum required Analytics Non-Key personnel staff to work collaboratively with the Department to develop and implement provider performance metrics, evaluate the credibility and efficacy of individual measures and baseline comparisons with recommended improvements, develop analytics for a multitude of Department-defined payment reform activities including incentive payment programs and provider shared savings models, assist in explaining and documenting reports to the Department and its stakeholders, attending stakeholder meetings, including provider meetings, to communicate results of analyses, provide industry-best practice analytics including but not limited to predictive modeling, creation of client Risk Scores, performance monitoring and benchmarking, evaluating utilization variances between providers, creating provider profiles and building advanced reporting that includes both ad hoc and a standard library of reports.

7.6.3.   All work will be assigned through the Change Management Process. In the event that the Department requires additional Non-Key Personnel in order to complete work faster than accounted for in the Change Management Process, then the Contractor shall only provide this additional Non-Key Personnel if the Department adds funding for that additional staff through a Contract amendment.

7.6.4.   Requirement Stage: BIDM Implementation Contract Stage II

7.7.   Reference #3143: The Contractor shall maintain adequate Operations Staff.

7.7.1.   The Contractor shall maintain Operations Staff necessary to perform the following functions, including but not limited to:

7.7.1.1.   Serve as single point of contact for day-to-day operations.

7.7.1.2.   Maintain effective communication of project updates and problem resolutions.

7.7.1.3.   Ensure quality control procedures are in place, utilized and issues resolved when identified through implemented quality checks.

7.7.1.4.   Maintain current documentation on operational processes and procedures and investigate anomalies, including notification of Department staff to operational issues and remediation plans.

7.7.1.5.   Ensure adherence to project and report delivery timeframes.

7.7.1.6.   Prepare operational reports by conducting business use analysis.

7.7.1.7.   Work with development team to automate operational reports.

7.7.1.8.   Provide user support for the BIDM Web Portal.

7.7.2. Contractor Approach: The Contractor shall maintain the minimum required Non-Key Personnel Operations staff to perform functions including but not limited to providing a single point of contact for day-to-day operations, maintaining effective communication of project updates and problem resolutions, ensuring quality control procedures are in place, utilized and issues are resolved through implemented quality checks, maintain current documentation on operational processes and procedures, investigate anomalies, notification of Department staff to operational and remediation plans, ensuring adherence to project and report delivery timeframes, preparing operational reports through business-use analyses, automating operational reports, and providing user support for the BIDM Web Portal.

7.7.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

7.8. Reference #3144: The Contractor shall maintain adequate Systems/Interface Staff.

7.8.1. The Contractor shall maintain Systems/Interface Staff necessary to perform the following functions, including but not limited to:

7.8.1.1. Maintain systems by researching and resolving problems.

7.8.1.2. Maintain system integrity and security.

7.8.1.3. Responsible for the Configuration and Customization of the BIDM, System Tools, and Rules Engine.

7.8.1.4. Establish, manage, and maintain BIDM Data Exchanges.

7.8.1.5. Schedule and execute file transfers with external BIDM Data Exchange sources.

7.8.1.6. Establish, manage, and maintain BIDM Interfaces.

7.8.1.7. Maintain file specifications for BIDM Data Exchanges.

7.8.1.8. Provide regular status updates to the Department regarding system issues and the implementation of system updates.

7.8.1.9. Ensure that installations of new processes are on target and maintain a system of checks and balances to assure that the underlying data is consistent, complete, and accurate.

7.8.1.10. Develop and gather requirements, analyze test plans and technical specifications, tests results and provide system documentation.

7.8.1.11. Design, implement, and maintain system architecture, such as the data warehouse and metadata.

7.8.1.12. Monitor BIDM performance and resolve issues.

7.8.2. Contractor Approach: The Contractor shall maintain the minimum required Non-Key Personnel Systems/Interface staff to perform functions including but not limited to maintaining systems by researching and resolving problems, maintaining system integrity and security, BIDM system configuration and customization of the system, system tools and rules engine, establish, manage, and maintain BIDM data exchanges, schedule and execute file transfers with external BIDM Data Exchange sources, establish, manage, and maintain BIDM Interfaces, maintain file specifications for BIDM Data Exchanges, providing regular status updates to the Department regarding system issues and the implementation of system updates, ensuring installations of new processes are on target and maintain a system of checks and balances to assure that the underlying data is consistent, complete and accurate, developing and gathering requirements, analyzing test plans and technical specifications, test results and providing system

documentation, designing, implementing and maintaining a system architecture, and monitoring BIDM performance and resolving issues.

7.8.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

7.9.   Reference #3145: The Contractor shall dedicate two (2) additional analytical/reporting staff FTE to developing, documenting, and producing queries and reports not explicitly mentioned in other requirements of this Contract during the BIDM Implementation Contract Stage I, BIDM Implementation Contract Stage II, and BIDM Implementation Contract Stage III.

7.9.1.   Queries and reports shall be developed per Department Specifications and through the Change Management Process.

7.9.2.   These FTE shall be in addition to any FTE the Contractor needs to assign to meet all other requirements in this Contract.

7.9.3.   Contractor Approach: The Contractor shall include two (2) additional analytical/reporting staff FTEs to develop, document, and produce queries and reports not explicitly mentioned in other requirements of the Contract during BIDM Implementation Contract Stage I, BIDM Implementation Contract Stage II, and BIDM Implementation Contract Stage III.

7.9.4.   Requirement Stage: BIDM Implementation Contract Stage I

7.10.   Reference #3146: The Contractor shall dedicate two (2) additional analytical/reporting staff FTE to developing, documenting, and producing queries and reports for the BIDM Web Portal not explicitly mentioned in other requirements in this Contract during the BIDM Implementation Contract Stage I, BIDM Implementation Contract Stage II, and BIDM Implementation Contract Stage III.

7.10.1.   Queries and reports shall be developed per Department Specifications and through the Change Management Process.

7.10.2.   These FTE shall be in addition to any FTE the Contractor needs to assign to meet all other requirements in this Contract.

7.10.3.   Contractor Approach: The Contractor shall include two (2) additional analytical/reporting staff FTEs to develop, document, and produce queries and reports for the BIDM Web Portal not explicitly mentioned in other requirements of the Contract during BIDM Implementation Contract Stage I, BIDM Implementation Contract Stage II, and BIDM Implementation Contract Stage III.

7.10.4.   Requirement Stage: BIDM Implementation Contract Stage I

7.11.   Reference #3147: Upon the approval of the Contractor and the Department, the Contractor shall provide staffing resources to provide analytical, reporting, and other duties in addition to the regular staff dedicated to the Contract to provide ad hoc query and reporting for Department approved external data requests, such as providing data and reports for grants and researchers.

7.11.1.   The hourly rate for this work shall correspond to the rates shown in Exhibit E, Section 1.1.3.1, but agreements with external parties shall be made independent of this Contract.

7.11.2.   Contractor Approach: Contractor shall provide staffing resources as needed to fulfill external requests and Contractor shall provide the work at the hourly rate defined in Exhibit E. Additional funding for these staff resources shall be added through the Contractor's agreement with the external party, and shall not be part of this Contract.

7.11.3.   Requirement Stage: BIDM Implementation Contract Stage II

8. PERSONNEL AVAILABILITY AND REPLACEMENT

8.1. Reference #3148: The Contractor shall obtain Department review and approval of the Resource Management Plan and materials and any subsequent updates.

8.1.1. The Department's approval of any resource plan does not imply that the staffing levels are sufficient, and the Contractor may still have to increase staffing if they are not meeting the Contract requirements.

8.1.2. The Resource Management Plan shall be updated and submitted for Department approval at least annually and upon key personnel changes.

8.1.3. Contractor Approach: The Contractor shall develop and deliver a Resource Management Plan and materials for the Department's review and approval at least annually and upon key personnel changes. The Resource Management Plan shall minimally include organizational charts, staffing charts, and defined reporting relationships.

8.1.4. Requirement Stage: BIDM Implementation Contract Stage II

8.2. Reference #3149: The Contractor shall provide a Resource Management Plan for Department approval.

8.2.1. The Resource Management Plan shall include, but is not limited to, all of the following:

8.2.1.1. A description of the proposed organization for each of the Project Phases of the Contract, as described in Exhibit D.

8.2.1.2. An Organization Chart that identifies positions and describes the organizational structure and team location(s) (specify in-State or out-of-State), and how this structure will contribute to project success.

8.2.1.3. Position descriptions and qualifications for each Labor Category identified on the proposed organization charts.

8.2.1.4. Labor Category title.

8.2.1.5. Position description.

8.2.1.6. Required education, training, licensure, and certification.

8.2.1.7. Required experience.

8.2.1.8. Specific skills or knowledge required.

8.2.1.9. Percent of time the position is dedicated to this contract.

8.2.1.10. A description for maintaining appropriate staffing levels throughout the term of the Contract and adjusting its resources as necessary to maintain the required level of service.

8.2.1.11. Identification of Subcontractors (if any).

8.2.2. Contractor Approach: The Contractor shall develop and provide a Resource Management Plan for the Department's review and approval. The Resource Management Plan shall include organizational charts, staffing charts, defined reporting relationships, and location of personnel.

8.2.2.1. The Resource Management Plan shall include:

8.2.2.1.1. A description of the proposed organization for each project phase (as described in Exhibit D).

8.2.2.1.2. Position descriptions and qualifications for each labor category on the proposed organizational charts.

8.2.2.1.3. Labor category title

8.2.2.1.4. Position description.

8.2.2.1.5. Required education, training, licensure, and certification.

8.2.2.1.6. Required experience, specific skills or knowledge required.

8.2.2.1.7. Percent time the position is dedicated this Contract.

8.2.2.1.8. A process description for maintaining appropriate staffing levels and adjusting resources as necessary to maintain the required level of service.

8.2.2.1.9. Identification of subcontractors (if any).

8.2.2.2. Within the Resource Management Plan, the Contractor shall provide an overview of how the structure will contribute to project success.

8.2.3. Deliverable: Resource Management Plan

8.2.4. Deliverable Stage: BIDM Implementation Contract Stage II

8.3. Reference #3150: The Contractor shall provide the Department the ability and option to conduct an exit interview with or survey any of the Contractor's Key Personnel and Non-Key Personnel who resign.

8.3.1. Contractor Approach: Contractor shall provide the Department with an opportunity to interview or survey Key or Non-Key staff prior to exiting the project.

8.3.2. Requirement Stage: BIDM Implementation Contract Stage II

8.4. Reference #3151: The Contractor shall ensure that all work on the BIDM is done in the United States and in Colorado where specified.

8.4.1. The following work shall be completed at the locations described in this section:

8.4.1.1. Configuration and Development Staff shall reside in the United States and be available onsite when requested by the Department.

8.4.1.2. Operational Staff, exclusive of business continuity, disaster recovery, data center, and general hardware/software/IT support, shall reside in Colorado.

8.4.1.3. Business continuity, disaster recovery, data center, and general hardware/software/IT support work shall be done in the United States.

8.4.2. Contractor Approach: Contractor shall conduct all work on the BIDM project within the borders of the United States. Configuration and development staff shall reside in the United States and be available onsite when requested by the Department. Operational staff – exclusive of business continuity, disaster recovery, the Data Center, general hardware/software/IT support, and systems operations and maintenance – will reside in Colorado. Business continuity, disaster recovery, data center, general hardware/software/IT support, systems operations and maintenance shall take place in the United States.

8.4.3. Requirement Stage: BIDM Implementation Contract Stage II

9. BIDM SYSTEM REQUIREMENTS - OVERVIEW

9.1. Reference #3152: The Contractor shall provide and host all hardware, software, and connectivity required to maintain and operate the BIDM and for all authorized BIDM users to access and utilize the BIDM.

9.1.1. Contractor Approach: The Contractor shall provide and host all the servers, software, connectivity, and licenses required for the BIDM System. The Contractor shall maintain and operate the BIDM and ensure that all authorized users have access to the software and data.

9.1.2. Requirement Stage: BIDM Implementation Contract Stage II

9.2. Reference #3153: The Contractor shall be responsible for providing all licenses for all hardware and software required to host, maintain, and operate the BIDM and for all authorized BIDM users to access and utilize the BIDM.

9.2.1. Contractor Approach: The Contractor shall provide all licenses for all hardware and software required to host, maintain, and operate the BIDM and for all authorized BIDM users to access and utilize the BIDM.

9.2.2. Requirement Stage: BIDM Implementation Contract Stage II

9.3. Reference #3154: The Contractor shall provide all necessary software and licensing to support BIDM functionality accessed by authorized BIDM users. The Contractor shall maintain the same software and version of software for all authorized BIDM users and Contractor staff.

9.3.1. Contractor Approach: The Contractor shall provide and host all the servers, software, connectivity, and licenses required for the BIDM System. The Contractor shall ensure that the Contractor staff and the Department's authorized users are using the same software version at all times.

9.3.2. Requirement Stage: BIDM Implementation Contract Stage II

9.4. Reference #3155: The Contractor shall provide all the necessary licenses for authorized BIDM users as provided in Exhibit E, Section 1.1.1.3.

9.4.1. Contractor Approach: The Contractor shall provide all necessary licenses for all hardware and software required to host, maintain, and operate the BIDM and for all authorized BIDM users to access and utilize the BIDM.

9.4.2. Requirement Stage: BIDM Implementation Contract Stage II

9.5. Reference #3156: The Contractor shall provide additional licenses and any advanced authorized BIDM user licenses not already specified in this Contract, for System Tools for other contractors, such as the Department's UM vendor and the Department's External Quality Review Organization, based on the actual Contractor's costs for obtaining the licenses, if the other contractors pay the Contractor for the licenses and the Department approves.

9.5.1. Contractor Approach: The Contractor shall extend use of the System Tools to the Department's third party contractors, as well as employees of other state government agencies, with proper authorization from the Department. The Contractor shall provide additional licenses based on the actual Contractor's costs for obtaining the licenses, if the other contractors pay the Contractor for the licenses and the Department approves.

9.5.2. Requirement Stage: BIDM Implementation Contract Stage II

9.6. Reference #3157: THIS REQUIREMENT INTENTIONALLY DELETED

9.7.   Reference #3158: THIS REQUIREMENT INTENTIONALLY DELETED

9.8.   Reference #3159: THIS REQUIREMENT INTENTIONALLY DELETED

9.9.   Reference #3160: The Contractor shall manage and maintain software upgrades and licenses so they are compatible with standard Department software.

9.9.1.   The Contractor shall provide training on software upgrades authorized by the Department within the Configuration Management Plan.

9.9.2.   Contractor Approach: The Contractor shall ensure that the BIDM software stays consistent with standard Department software, as long as the Department's software stays up to date with the versions recommended by the software suppliers. The Contractor shall install hardware and software upgrades in accordance with the Configuration Management Plan.   When the Contractor upgrades the end-user software, it shall make upgrade training available to all users.

9.9.3.   Requirement Stage: BIDM Implementation Contract Stage II

9.10.   Reference #3161: The Contractor shall procure, host, and maintain infrastructure hardware and software updates including upgrades and technology refreshes to maintain functionality of all operations, including but not limited to environments, interfaces, and tools.

9.10.1. Contractor Approach: The Contractor shall procure, host, and maintain the infrastructure for the System (environments, interfaces, and tools), including the management of software updates and installation of a hardware upgrade. The Contractor shall keep its infrastructure for the operating and communication environments up to date. Contractor shall install new versions of end-user software as shown in Exhibit A, as they may be released by the software suppliers. Contractor shall provide a system-wide upgrade in hardware in Operations Year 3 of the Contract.

9.10.2. Requirement Stage: BIDM Implementation Contract Stage II

10. COMPLIANCE WITH CMS SEVEN STANDARDS AND CONDITIONS

10.1.   Reference #3162: The Contractor shall provide documentation and a description for how the solution will follow key technical architecture components as described by MITA.

10.1.1. These key technical architecture components shall include, but are not limited to, all of the following:

10.1.1.1.   Business Enabling Services.

10.1.1.2.   Access Channels.

10.1.1.3.   Interoperability Channels.

10.1.1.4.   Data Management and Data Sharing.

10.1.1.5.   Performance Measurement.

10.1.1.6.   Security and Privacy.

10.1.1.7.   Adaptability and Extensibility.

10.1.2. The Contractor shall conform to CMS guidelines related to MITA. The Contractor shall perform at MITA Maturity Level 2 at a minimum, and shall work toward MITA Maturity Level 3 during the term of the Contract.

10.1.3. Contractor Approach: The Contractor shall provide documentation and a description for how the solution will follow key technical architecture components as described by MITA through the use of visual diagrams and written documentation detailing the technical architecture design.

10.1.3.1. The Contractor shall include the following key components in the technical architecture that supports a MITA 3.0 approach:

10.1.3.1.1. Business Enabling Services through a Service Oriented Architecture (SOA). Our COTS products included in our solution follow an open, reusable system architecture as a guiding principle.

10.1.3.1.2. Access Channels through a web portal, providing access to users across agencies and business partners (with sufficient additional user licenses) that are given proper authorization to the data within the BIDM.

10.1.3.1.3. Interoperability Channels that will interface with the Colorado Immunization Information System; Maternal, Infant, and Early Childhood Visiting Program; and the Colorado Central Cancer Registry, to support quality measurement and improvement. The data warehouse component of our solution is also capable of interfacing with the state's health information exchange (HIE), to share data with the HIE or to receive clinical data from the HIE when the data is available.

10.1.3.1.4. Data Management and Data Sharing will be provided through the Information Layer by providing the data needed to support the analytics. This includes promoting, for example, data standardization, standards-based interoperability, data privacy and security, and data governance. Through this layer, data is shared with those authorized to view it.

10.1.3.1.5. Performance Measurement by managing the implementation and delivery of products and services to meet the specified performance indicators, thereby enabling the Department to achieve strong business results. System availability, report response time, the timeliness of data loads, and timeliness of problem resolution will all be monitored within your solution.

10.1.3.1.6. Security and Privacy features of the solution will meet all HIPAA data privacy and security requirements. Employee access to protected health information (PHI) requires a "need to know," is available only to a restricted number of our staff, and requires strong authentication within applications serviced from our Data Center. The Contractor's corporate security officer (CSO) has the authority to enforce the company's policies and procedures, including mandatory annual training and certification for our staff.

10.1.3.1.7. Adaptability and Extensibility will be achieved by designing your solution to remain flexible and adaptable to meet the ever-changing needs of the modern Medicaid environment. This approach helps isolate the impacts that a change in one layer of the architecture has on the other layers, helping to promote the stability of the solution. As the Contract progresses, the Department's tools will evolve, providing the Department with MITA Maturity Level 3 functionality.

10.1.4. Requirement Stage: BIDM Implementation Contract Stage II

10.2. Reference #3163: The Contractor shall promote an enterprise view that supports enabling technologies that align with Department directives and best practices associated with Medicaid business processes and technologies.

10.2.1. Contractor Approach: The Contractor shall promote an environment that supports flexibility and rapid response to changes in technology. This enterprise view shall support new technologies to be aligned with Department directives and best practices associated with Medicaid business processes and technologies. As changes to the solution become necessary to meet further refinement of MITA by CMS, the Contractor shall use the Change Management Process, as necessary, to ensure the solution continues to support the Department's improvements in MITA maturity.

10.2.2. Requirement Stage: BIDM Implementation Contract Stage II

11. COMPLIANCE WITH FEDERAL AND STATE STANDARDS

11.1. Reference #3164: The BIDM shall meet the federal requirements for certification and licensure as prescribed in the State Medicaid Manual, Part 11, as well as 42 and 45 CFR.

11.1.1. Contractor Approach: Contractor shall ensure the BIDM meets applicable state and CMS MECT requirements, initially and throughout the term of the Contract. The BIDM shall comply with both the traditional CMS certification checklists for MARS and SURS as well as the new MITA-certified checklists for data warehouse/decision support system (DW/DSS), program management reporting, federal reporting, program integrity, and the population-based reporting requirements for care management.

11.1.2. Requirement Stage: BIDM Implementation Contract Stage III

11.2. Reference #3165: The Contractor shall provide documentation and a description for how the solution will comply with CMS' Seven Standards and Conditions necessary for the Department to receive enhanced Federal Financial Participation (FFP).

11.2.1. Contractor Approach: The Contractor shall support the Department in complying with the Seven Conditions and Standards in order to be eligible for enhanced funding from the CMS.

11.2.2. Deliverable: Seven Standards and Conditions Documentation and Description

11.2.3. Deliverable Stage: BIDM Implementation Contract Stage III

11.3. Reference #3166: The BIDM shall comply with all sections of the Americans with Disabilities Act (ADA), Section 508 of the Rehabilitation Act, and the Web Content Accessibility Guidelines WCAG 2.0. and include comprehensive online help features, such as mouse-over help and "what is this?" detail.

11.3.1. Contractor Approach: The Contractor shall support accessibility standards as defined by Section 508 of the Rehabilitation Act, and other standards, such as the World Wide Web Consortium's (W3C) web application standards and Web Content Accessibility Guidelines (WCAG 2.0).

11.3.1.1. In order to support this accessibility, the Contractor shall ensure all of the following are done:

11.3.1.1.1. A comprehensive analysis of the BIDM to meet the standards set forth within Section 508 of the Rehabilitation Act.

11.3.1.1.2. Incorporation of Section 508 standards into all future development projects as appropriate.

11.3.1.1.3. Incorporation of Section 508 process checks within the BIDM development processes, with a particular focus on new interface development.

11.3.1.1.4. Continued investment in a dedicated group of user-experience professionals, which shall be responsible for interpretation of Section 508 requirements, the design of all user interfaces, and strategic inclusion of Section 508 components in the BIDM.

11.3.1.1.5. Third-party technology partners are selected that also demonstrate a commitment to Section 508 compliance.

11.3.1.2. The BIDM shall also leverage tools, such as the Cognos Business Intelligence toolset, to further support Section 508 requirements. The Contractor shall also ensure that all reports and communications developed by the Contractor on behalf of the Department will meet health literacy levels established by the National Institute for Health and state guidelines for medical terms and descriptions.

11.3.2. Requirement Stage: BIDM Implementation Contract Stage II

11.4. Reference #3167: The Contractor shall comply with federal and State security criteria as outlined by the Colorado Office of Information Security, HIPAA Privacy and Security rules, in the standard system security plan template.

11.4.1. Contractor Approach: Contractor shall submit a standard Security Plan that complies with applicable federal and state security criteria, as outlined by the Colorado Office of Information Security and HIPAA Privacy and Security rules.

11.4.1.1. The Contractor may develop the Security Plan based on a Department-provided or defined template or develop the Security Plan based on the National Institute of Standards and Technology (NIST) Special Publication 800-53, Revision 3, "Recommended Security Controls for Federal Information Systems and Organization", as approved or directed by the Department.

11.4.1.2. The Contractor shall provide detailed security control implementation and status information in the form approved or directed by the Department.

11.4.2. Requirement Stage: BIDM Implementation Contract Stage II

11.5. Reference #3168: The Contractor shall provide detailed security control implementation and status information (where applicable).

11.5.1. The Contractor shall provide detailed security control implementation and status information all for the following Control Categories:

11.5.1.1. Management Controls: Risk Assessment, Planning, Systems and Services Acquisition, Certification, Accreditation and Security, and Program Management.

11.5.1.2. Operational Controls: Personnel Security, Physical and Environmental Protection, Contingency Planning, Configuration Management, Maintenance, System and Information Integrity, Media Protection, Incident Response, and Security Awareness and Training.

11.5.1.3. Technical Controls: Identification and Authentication, Access Controls, Audit and Accountability, and System and Communications Protection.

11.5.2. Contractor Approach: The control categories addressed in the Security Plan shall include:

11.5.2.1. Management Controls: Risk Assessment, Planning, Systems and Services Acquisition, Certification, Accreditation and Security, and Program Management.

11.5.2.2.   Operational Controls: Personnel Security, Physical and Environmental Protection, Contingency Planning, Configuration Management, Maintenance, System and Information Integrity, Media Protection, Incident Response, and Security Awareness and Training.

11.5.2.3.   Technical Controls: Identification and Authentication, Access Controls, Audit and Accountability, and System and Communications Protection.

11.5.3.   Deliverable: Detailed Security Control Implementation and Status Information

11.5.4.   Deliverable Stage: Requirement Stage: BIDM Implementation Contract Stage II

11.6.   Reference #3169: The Contractor shall provide a third party cyber security assessment to execute the security audit prior to Go-Live. The selected third party assessor will work with the Colorado Office of Information Security and provide reports to the Department.

11.6.1.   Contractor Approach: The Contractor shall perform weekly vulnerability scans on all external-facing servers, and on all internal-facing servers every month.

11.6.1.1.   The Contractor shall engage a third party to perform an annual network penetration test. The Contractor shall ensure vulnerabilities are captured, categorized, evaluated, and remediated in a timely manner, based on the risk exposure, such as critical, high or medium. Both the scans and network penetration testing supply the third party cyber security assessment. The Contractor shall provide the audit reports to the Colorado Office of Information Security and the Department, prior to "Go-Live."

11.6.2.   Requirement Stage: Requirement Stage: BIDM Implementation Contract Stage II

11.7.   Reference #3170: Prior to Ongoing Operations and Enhancements Contract Stage, the Contractor shall demonstrate that the BIDM system infrastructure (hardware, software, and linkages) is operational and meets federal and State architectural, technical, security and privacy requirements as well as the business and functional requirements.

11.7.1.   Contractor Approach: Prior to the Ongoing Operations and Enhancement Contract Stage, the Contractor shall demonstrate that the BIDM system infrastructure is operational and meets applicable federal and state architectural, technical, security and privacy, business, and functional requirements by providing the Security Plan, reviewing with the Department and Contractor, and obtaining approval of the Security Plan from the Department.

11.7.2.   Requirement Stage: Requirement Stage: BIDM Implementation Contract Stage II

11.8.   Reference #3171: Data management within the BIDM and the Contractor's operational policies and practices shall meet the requirements of this section.

11.8.1.   Data Management and operational policies and procedures shall:

11.8.1.1.   Meet HIPAA, HITECH, ARRA and other federal and State privacy and security requirements as they currently exist and be Configurable to assist in meeting future requirements.

11.8.1.2.   Ensure security, accuracy, and timeliness of BIDM Interfaces, BIDM Exports, and BIDM Imports.

11.8.1.3.   Incorporate electronic and digital signatures that comply with HIPAA and State law.

11.8.2.   Contractor Approach: The Contractor's Data Management and operational policies and procedures shall:

11.8.2.1.   Meet applicable HIPAA, HITECH, ARRA and other federal and State privacy and security requirements as they currently exist and be Configurable to assist in meeting future requirements.

11.8.2.2.   Ensure security, accuracy, and timeliness of BIDM Interfaces, BIDM Exports, and BIDM Imports.

11.8.2.3.   Incorporate electronic and digital signatures that comply with HIPAA and State law.

11.8.3.   Requirement Stage: Requirement Stage: BIDM Implementation Contract Stage II

11.9.   Reference #3172: The Contractor shall provide Contractor developed reports and provider communications that meet the health literacy levels established by the federal (National Institute for Health) and State guidelines for medical terms and descriptions.

11.9.1.   Contractor Approach: The Contractor shall ensure all reports and communications developed by Contractor on behalf of the Department meet health literacy levels established by the National Institute for Health and state guidelines for medical terms and descriptions.

11.9.2.   Deliverable: Reports and Provider Communications

11.9.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

11.10.   Reference #3173: The Contractor shall provide ability for the Department to create program specific alerts, such as alerts to authorized BIDM users, through easily defined parameters.

11.10.1.   Contractor Approach: Using the BIDM jobs and alerts, the BIDM shall notify users automatically about exceptions to norms of utilization or quality-of-care standards for any type of provider, as well as any type of client covered by the state. An alert shall send an email to a user when a report exceeds a specific measure or threshold. This functionality shall not apply to security or intrusion detection alerts.

11.10.2.   Requirement Stage: BIDM Implementation Contract Stage III

11.11.   Reference #3174: Prior to implementation of any BIDM Interfaces or BIDM Data Exchanges, the Contractor shall ensure that the exchange of data meets all federal and State security and privacy requirements.

11.11.1.   Contractor Approach: Prior to implementation of any BIDM Interfaces or BIDM Data Exchanges, the Contractor shall ensure that the exchange of data meets all federal and State security and privacy requirements. The Contractor shall define the security policies that allow authorized access to data. Contractor shall do so in consideration of the applicable state and federal regulations surrounding the data.

11.11.2.   Requirement Stage: BIDM Implementation Contract Stage III

12. SYSTEM PERFORMANCE

12.1.   Reference #3175: The Contractor shall ensure that unscheduled system downtime (anytime the user cannot access the BIDM or carry out business functions) due to any failures is limited.

12.1.1.   Indications that the system is operating outside of acceptable performance boundaries include, but are not limited to, all of the following:

12.1.1.1.   Delays or interruptions in the operation of the BIDM and related services caused by inadequate equipment or processing capacity.

12.1.1.2.   Components not available for use by authorized BIDM users as required except during periods of scheduled maintenance.

12.1.1.3.   Screen response time in excess of defined response times in this Contract.

12.1.1.4.   BIDM Web Portal not available for use at all times except during periods of scheduled downtime.

12.1.1.5.   Inability of authorized BIDM users to create, process, or store reports.

12.1.1.6.   Inability BIDM users to perform data analysis.

12.1.2.   Contractor Approach: The Contractor shall ensure that the BIDM system is available as set forth in the Performance Standards in Exhibit G and as described in the Ongoing Support Maintenance Plan.

12.1.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

12.2.   Reference #3176: The Contractor shall provide messages, alerts, and a "system is down" Internet notification to inform Department staff and authorized BIDM users about BIDM system changes, data errors, data load failures, BIDM downtimes and when the BIDM is returned back to service.

12.2.1.   Contractor Approach: The Contractor shall provide applicable alerts to inform appropriate department staff and a "system is down" notification page to authorized BIDM users to relay information about system changes, data errors, data load failures, BIDM downtimes, and when the BIDM is returned to service. These requirements shall be addressed in the System Operations and Maintenance Plan.

12.2.2.   The Contractor shall adhere to the deliverable submission, review, and approval process as described and approved by the Department in the Communication Management Plan.

12.2.3.   Deliverable: Messages, Alerts and "System is Down" Notifications as applicable

12.2.4.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

13. AUDITABLE ACTIONS

13.1.   Reference #3177: The Contractor shall provide an audit process to identify and track changes to system-generated fields and data, such as calculated fields, functions, and data, and system-based modifications to any master file data, such as client, provider, reference, benefit package, managed care entity enrollment and interface data.

13.1.1.   Contractor Approach: The Contractor shall provide an audit process to identify and track changes to system-generated fields and data, and system-based modifications to any master file data.

13.1.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

13.2.   Reference #3178: The Contractor shall provide the ability to allow authorized BIDM users to view, print, export, and analyze an audit trail of any adds or changes made to data files in the BIDM.

13.2.1.   Contractor Approach: The Contractor shall provide the ability to allow authorized BIDM users to view, print, export, and analyze an audit trail of any adds or changes made to data files in the BIDM.

13.2.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

13.3.   Reference #3179: The Contractor shall provide the ability to review all changes made to fields in the BIDM and maintain an audit trail for all actions performed. This excludes actions by an authorized BIDM user in the Sandbox.

13.3.1.   Contractor Approach: Contractor shall provide the ability to review all changes made to fields in the BIDM and maintain an audit trail for all actions performed. Contractor acknowledges that the Sandbox-defined work areas will not require functionality for auditing action, data integrity, data accuracy, or preserving an accurate historical record of changes made to the objects controlled by authorized System users.

13.3.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

13.4.   Reference #3180: The BIDM shall maintain an audit trail that can be used to identify authorized BIDM users who accessed which reports in the BIDM, when, and how often.

13.4.1.   This shall include all end products, such as reports and maps.

13.4.2.   Contractor Approach: The Contractor shall maintain an audit trail that can be used to identify authorized BIDM users who accessed which reports in the BIDM, when, and how often. All end products, such as reports and maps, shall be included.

13.4.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

13.5.   Reference #3181: The Contractor shall ensure that all audit trails are easy-to-use, such as through the use of graphical user interfaces and paper layouts, easy to read, such as little or no use of codes or abbreviations, and easy to understand, such as activities and logs using complete English sentences describing what happened.

13.5.1.   Contractor Approach: The Contractor shall ensure that all audit trails are easy-to-use, such as through the use of graphical user interfaces and paper layouts, easy to read, such as little or no use of codes or abbreviations, and easy to understand, such as activities and logs using complete English sentences describing what happened.

13.5.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

13.6.   Reference #3182: The BIDM shall maintain an audit trail for reporting the usage of the BIDM Web Portal by authorized BIDM users.

13.6.1.   This shall include reporting on the frequency of reports accessed through the BIDM Web Portal and which authorized BIDM users accessed those reports.

13.6.2.   Contractor Approach: The BIDM shall maintain an audit trail for reporting the usage of the BIDM Web Portal by authorized BIDM users. This shall include reporting on the frequency of reports accessed through the BIDM Web Portal and which authorized BIDM users accessed those reports.

13.6.3.   Requirement Stage: BIDM Implementation Contract Stage III

14. SYSTEM ARCHITECTURE

14.1.   Reference #3183: The Contractor shall ensure components will integrate with the overall enterprise.

14.1.1.   Components shall integrate with the overall enterprise to do all of the following:

14.1.1.1.   Provide convenient, instant access to current and historical information without requiring a separate sign-on beyond the initial authorized BIDM user sign-on.

14.1.1.2. Employ a security approach that integrates with other BIDM components to provide role-based access with a single log-on.

14.1.1.3. Integrate with and provide support to other BIDM components as defined by the Department.

14.1.2. Contractor Approach: The Contractor's design shall work seamlessly with the Single Sign-On (SSO) solution defined by the MMIS contractor.

14.1.2.1. Provide convenient, instant access to current and historical information without requiring a separate sign-on beyond the initial authorized BIDM user sign-on.

14.1.2.2. Employ a security approach that integrates with other BIDM components to provide role-based access with a single log-on.

14.1.2.3. Integrate with and provide support to other BIDM components as defined by the Department.

14.1.3. Requirement Stage: BIDM Implementation Contract Stage III

14.2. Reference #3184: The development of system architecture for data organization and storage shall follow a proven, industry best practice methodology, such as the Kimball Lifecycle.

14.2.1. Contractor Approach: The Contractor shall develop the system architecture for data organization and storage following the Data Warehouse 2.0 Architecture proposed by Bill Inmon, a proven, industry best practice methodology.

14.2.2. Requirement Stage: BIDM Implementation Contract Stage III

14.3. Reference #3185: The Contractor shall ensure that all software and systems interact and coordinate as appropriate for optimal overall BIDM service delivery.

14.3.1. All interfaces, software and data shall be compatible to ensure that the maximum efficiency of the BIDM is achieved.

14.3.2. Contractor Approach: The Contractor shall ensure that all software and systems interact and coordinate based on MITA 3.0 principles and the Seven Standards and Conditions for optimal overall BIDM service delivery.

14.3.2.1. The Contractor shall ensure that all interfaces, software and data are compatible, based on MITA 3.0 principles and the Seven Standards and Conditions, to ensure that the maximum efficiency of the BIDM is achieved.

14.3.3. Requirement Stage: BIDM Implementation Contract Stage II

14.4. Reference #3186: The Contractor shall ensure that the architecture used for the BIDM allows for data to be easily and quickly added, removed, or enhanced as needed by the Department.

14.4.1. The BIDM shall have the ability to accept any data as needed by the Department.

14.4.2. Contractor Approach: The Contractor shall ensure that the architecture used for the BIDM allows for data to be easily and quickly added, removed, or enhanced as needed by the Department by implementing a data model which uses industry best practices for data warehousing and data mart development.

14.4.3. Requirement Stage: BIDM Implementation Contract Stage II

14.5. Reference #3187: The Contractor shall provide a scalable and open architecture, which can interface with other systems in the future as required by the Department.

14.5.1.   Contractor Approach: The Contractor shall use Data Warehouse 2.0 Architecture for the BIDM that results in a robust but flexible data-warehousing platform that can grow and scale as the Department's information needs increase and change over time.

14.5.2.   Requirement Stage: BIDM Implementation Contract Stage III

14.6.   Reference #3188: The Contractor shall provide a service-based architecture that makes it possible to implement common interoperability and access across the Department's enterprise, including other applications, other State agencies, contractors, federal and State systems, and other new systems as needed.

14.6.1.   Implementation of the addition of new systems will occur through the Change Management Process.

14.6.2.   Contractor Approach: The Contractor shall provide a service-oriented architecture solution. The Contractor's design shall work seamlessly with the SSO solution defined by the MMIS contractor.   The BIDM environment shall provide the role-based access and control functionality.

14.6.3.   Contractor shall add new systems through the Change Management Process.

14.6.4.   Requirement Stage: BIDM Implementation Contract Stage III

14.7.   Reference #3189: The Contractor shall implement and maintain an architecture that will provide an analytic solution that is timely, accurate, usable, and easily accessible to support program analysis and decision-making.

14.7.1.   Contractor Approach: The Contractor shall implement and maintain an architecture that will provide an analytic solution that is timely, accurate, usable, and easily accessible to support program analysis and decision-making. The Contractor shall ensure that data is accurate and usable to support program analysis and decision making. Data structures will reflect the rules and relationships that exist in the business environment. These structures will help ensure that data of sufficient quality is available for analytic decision making. Data shall be aggregated and presented in a manner consistent with the business questions the Department is tasked with answering.

14.7.2.   Requirement Stage: BIDM Implementation Contract Stage III

14.8.   Reference #3190: The Contractor shall promote the use of best practices to optimize data for query, retrieval, and reporting.

14.8.1.   Contractor Approach: The Contractor shall design the data warehouse and the dimensional data marts using proven industry best practices, resulting in a database design optimized for an analytic workload. In addition, the Contractor shall conduct performance/stress testing, the objective of which is to improve the performance of the various components in the BI stack.

14.8.2.   Requirement Stage: BIDM Implementation Contract Stage III

14.9.   Reference #3191: The BIDM shall provide equal response time to an authorized BIDM user performing analysis regardless of the BIDM environment used if more than one environment is provided.

14.9.1.   Contractor Approach: The BIDM shall provide acceptable response time to authorized BIDM users. The Contractor shall provide information to the Department for the Department to establish acceptable service level agreements for the kinds of queries that can be executed in

each environment and criteria for users to determine the environment best suited to their analytic needs.

14.9.2.   Requirement Stage: BIDM Implementation Contract Stage II

14.10.   Reference #3192: The Contractor shall provide an architecture that clearly defines service end points that add functionality without requiring pervasive or broad changes to the BIDM. The BIDM shall incorporate modularity for ease in improvements and upgrades.

14.10.1.   Contractor Approach: The Contractor shall design the various solution components, such as business intelligence, data integration, DBMS and analytics, using industry best practices, to help to isolate the impact that changes in one part of the stack have elsewhere. This modularity of design shall minimize the impact that any individual change has on the system as a whole.

14.10.2.   The BIDM shall incorporate modularity for ease in improvements and upgrades.

14.10.3.   Requirement Stage: BIDM Implementation Contract Stage II

14.11.   Reference #3193: The Contractor shall provide Enterprise Application Integration (EAI) to include web services technology and industry standards to promote web-based and backend BIDM applications integration.

14.11.1.   Contractor Approach: The Contractor shall provide a BIDM that includes web services technology based on industry standards.

14.11.2.   Requirement Stage: BIDM Implementation Contract Stage II

14.12.   Reference #3194: The Contractor shall ensure that all BIDM system tools return the same results when the same parameters are used.

14.12.1.   Contractor Approach: The Contractor shall design the BIDM to return consistent results for identical queries executed using different system tools.

14.12.2.   Requirement Stage: BIDM Implementation Contract Stage III

14.13.   Reference #3195: The Contractor shall maximize use of industry standards for the design and maintenance of the BIDM, and the interface and exchange of data into and out of the BIDM.

14.13.1.   Contractor Approach: The Contractor shall maximize use of industry standards for the design and maintenance of the BIDM, and the interface and exchange of data into and out of the BIDM.

14.13.2.   Requirement Stage: BIDM Implementation Contract Stage II

14.14.   Reference #3196: The Contractor shall provide and maintain all service delivery documentation related to the design of each module/component and its interaction with other modules/components as appropriate.

14.14.1.   Contractor Approach: The Contractor shall document appropriately all design and configuration activities using the standards to which both parties have agreed early in the project. This documentation shall be available through the document management system.

14.14.2.   Requirement Stage: BIDM Implementation Contract Stage III

14.15.   Reference #3197: The Contractor shall provide a holistic, multi-dimensional data view, such as pictures, diagrams and flow charts, of the architecture requirements the Contractor shall provide a means for the Contractor, the Department, and authorized BIDM users to visualize the BIDM components and interactions.

14.15.1. Contractor Approach: The Contractor shall produce the appropriate architectural diagrams and documentation to support both development and maintenance of this solution. These diagrams shall include but are not limited to artifacts as data models, business/ information/technical architecture diagrams, infrastructure diagrams, and data flow diagrams. The Contractor shall make these available to the Department in a location approved by the Department

14.15.2. Requirement Stage: BIDM Implementation Contract Stage III

14.16. Reference #3198: The Contractor shall provide an approach to Configuration of the BIDM that can be easily updated and expanded to support changing Department needs.

14.16.1. Contractor Approach: The Contractor shall provide a solution that is based on COTS products that are modular and configurable. The contractor shall use a service-based, component-oriented architecture that allows for easy addition, subtraction, and substitution of any component in the BIDM based on the changing needs of the Department.

14.16.2. Requirement Stage: BIDM Implementation Contract Stage II

15. APPLICATION ENVIRONMENT

15.1. Reference #3199: The Contractor shall provide all BIDM system environment(s), such as multiple environments, multiple application layers and hub architecture, necessary to perform all required functionality and Work under this Contract.

15.1.1. Contractor Approach: The Contractor shall provide BIDM system environments, multiple application layers and hub architecture as described below.

15.1.1.1. Development and Unit Test: Developers shall use this environment as they work on individual programs, apply patches and updates, and write unit tests. The development environment shall contain enough data volume, approximately twenty percent (20%), to balance the need for testing, while still keeping the environment representative of production.

15.1.1.2. System and Integration Test: This environment shall be used for integrating code from the development team and verifying all functionality works according to specification before moving into a formal testing phase.

15.1.1.3. User Acceptance Test: This environment shall exist for the Department to accept new functionality and is similar to production in terms of its design, although it will be a scaled-down version of the production infrastructure. This environment shall support all required UAT activities, including training, defect logging, and other issues prior to sign-off and release of all work products to production.

15.1.1.4. Performance Test: This environment shall be production sized and shall be used to test how new functionality performs before introducing it into production. The performance test environment shall contain enough data volume to balance the need for testing while keeping the environment representative of production.

15.1.1.5. Production: The production environment shall be where production data is staged, production databases are updated, and users run the live application. Changes to this environment shall happen in periodic updates to the software after the application changes have passed through the previous environments.

15.1.1.6. Disaster Recovery: The disaster recovery (DR) environment shall be housed in a secondary Data Center, such as the Contractor's Data Center in Sterling, Virginia.

15.1.2. Some of the BIDM System components will not require every listed environment.

15.1.3.	Requirement Stage: BIDM Implementation Contract Stage II

15.2.	Reference #3200: The Contractor shall provide the ability to run multiple sessions simultaneously and have multiple views in in the same environments, application, and System Tools.

15.2.1.	Contractor Approach: The Contractor shall provide users the ability to run multiple sessions simultaneously and have multiple views in the same environments, application, and System Tools.

15.2.2.	Requirement Stage: BIDM Implementation Contract Stage III

15.3.	Reference #3201: The Contractor shall provide the ability to run multiple applications simultaneously while accessing data in the BIDM.

15.3.1.	Contractor Approach: The Contractor shall provide the ability to run multiple applications simultaneously while accessing data in the BIDM.

15.3.2.	 Requirement Stage: BIDM Implementation Contract Stage II

15.4.	Reference #3202: Software provided by the Contractor shall not inhibit the simultaneous use of other Department software that accesses the BIDM.

15.4.1.	Any Department Software that would access the BIDM will be implemented through the Change Management Process.

15.4.2.	Contractor Approach: Software provided by the Contractor shall not inhibit the simultaneous use of other Department software that accesses the system.

15.4.3.	Requirement Stage: BIDM Implementation Contract Stage II

16. RULES ENGINE

16.1.	Reference #3203: The Contractor shall provide an easily accessible Rules Engine with the flexibility and capacity to support multiple complex data analytics.

16.1.1.	Functionality of the Rules Engine shall include, but is not limited to, all of the following:

16.1.1.1.	Population identification.

16.1.1.2.	Linkages/relationships.

16.1.1.3.	Filters.

16.1.1.4.	Sorts.

16.1.1.5.	Data normalization.

16.1.1.6.	Groupers by any data element or attribution.

16.1.2.	The BIDM shall allow authorized BIDM users of both the Contractor and the Department to be able to Configure the rules. The Department will establish which users are authorized to make changes to the rules engine. The Department will also establish the policy under which rules may be changed and all proposed changes are subject to Department approval before they are implemented.

16.1.3.	Contractor Approach: The Contractor shall provide an easily accessible Rules Engine Functionality with the flexibility and capacity to support multiple complex data analytics. The Contractor shall leverage capabilities of systems, such as the Informatica ETL platform, Cognos and SAS, to meet the Rules Engine Functionality.

16.1.3.1.	The BIDM shall allow authorized BIDM users of both the Contractor and the Department to be able to configure the rules. The Department will establish which users are authorized to make changes to the rules engine. The Department will also establish the policy under which rules may be changed and all proposed changes are subject to Department approval before they are implemented as specified in the Change Management Plan.

16.1.4.	Requirement Stage: BIDM Implementation Contract Stage III

16.2.	Reference #3204: The Contractor shall provide clear, concise, and automated business rules that minimize production BIDM Configuration errors.

16.2.1.	Contractor Approach: The Contractor shall provide clear, concise, and automated business rules that minimize production BIDM Configuration errors. The Contractor shall provide a testing environment to evaluate new rules before adding them to the production environment. The Department shall be able to use this environment to test new business rules, to ensure that they meet the goal of clear, concise, and automated business rules.

16.2.2.	Requirement Stage: BIDM Implementation Contract Stage III

16.3.	Reference #3205: The Contractor shall provide the ability to Configure rules to be date specific, including date added, date modified, start date, end date, and effective date.

16.3.1.	Contractor Approach: The Contractor shall provide the ability to configure rules to be date specific, including date added, date modified, start date, end date, and effective date, as provided through a system, such as Informatica. A system, such as the Informatica Rule Engine component, shall automatically capture important metadata about a defined transformation, including the date it was created, the date it was modified, and so forth. Control over the rules shall be able to be built in by including start and stop dates within the body of the rule.

16.3.2.	Requirement Stage: BIDM Implementation Contract Stage III

16.4.	Reference #3206: The Contractor shall provide the ability to configure rules exceptions to be date specific, including date added, date modified, start date, end date, and effective date.

16.4.1.	Contractor Approach: The Contractor shall provide the ability to configure rules exceptions to be date specific, including date added, date modified, start date, end date, and effective date as provided through a system, such as Informatica. Rule exceptions shall be treated as rules and shall have the same metadata as a standard rule, including date created, date modified, and so forth.

16.4.2.	Requirement Stage: BIDM Implementation Contract Stage III

16.5.	Reference #3207: The Contractor shall provide the ability, via Rules Engine Functionality, to delineate populations to facilitate Department activities based on Department defined criteria, such as disease state management, catastrophic cases, improvement of health outcomes and population management.

16.5.1.	Contractor Approach: The Contractor shall provide the ability, via Rules Engine Functionality, to delineate populations to facilitate Department activities based on Department defined criteria, such as disease state management, catastrophic cases, improvement of health outcomes and population management.

16.5.2.	Requirement Stage: BIDM Implementation Contract Stage III

16.6.	Reference #3208: The Contractor shall provide Department review and approval on the rules configuration, rules engine design, testing, and rules updates.

16.6.1.   Contractor Approach: The Contractor shall provide Department review and approval on the rules configuration, rules engine design, testing, and rules updates. Deployment of new rules shall follow approved Change Management Plan to support the controlled release of new rules.

16.6.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.7.   Reference #3209: The Contractor shall provide the ability for Department authorized BIDM users to test rules against replicated production data prior to implementation.

16.7.1.   Contractor Approach: The Contractor shall provide the ability for Department authorized BIDM users to test rules against replicated production data prior to implementation. Deployment of new rules shall follow approved Change Management Plan to support the controlled release of new rules.

16.7.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.8.   Reference #3210: The Contractor and authorized Department staff shall have the capability to add, delete, and modify rules, such as business logic, per Department direction without modifying the application code.

16.8.1.   Contractor Approach: The Contractor and authorized Department staff shall have the capability to add, delete, and modify rules, such as business logic, per Department direction without modifying the application code.

16.8.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.9.   Reference #3211: The Contractor and authorized Department staff shall have the capability to add, delete, modify and validate rules without the need to learn a specialized coding language (i.e., the rules engine will use English-like syntax).

16.9.1.   Contractor Approach: The Contractor and authorized Department staff shall have the capability to add, delete, modify and validate rules without the need to learn a specialized coding language (i.e., the Rules Engine Functionality will use English-like syntax). The Rules Engine Functionality shall include a number of pre-built data transformations that allow users to shape the data into the needed form, without specialized coding language. The Contractor shall provide training to authorized Department staff regarding the English-like syntax used in the Rules Engine Functionality, as described in the Training Plan

16.9.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.10.   Reference #3212: The Contractor shall provide the ability to link or classify records according to rules and/or rule groups.

16.10.1.   Contractor Approach: The Contractor shall provide the ability to link or classify records according to rules and/or rule groups.

16.10.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.11.   Reference #3213: The Contractor shall provide the ability for users to receive push notifications/alerts based on user-Configurable parameters (rules and/or rules groups).

16.11.1.   Contractor Approach: The Contractor shall provide the ability for users to receive push notifications/alerts based on user-Configurable parameters (rules and/or rules groups). The Rules Engine Functionality shall be capable of sending "push" notifications and alerts to a defined list of users based on triggering events within the data. These notifications shall be user configurable; users shall be able to define the conditions under which these notifications are triggered, as well as configure the content of the message.

16.11.2. Requirement Stage: BIDM Implementation Contract Stage III

16.12. Reference #3214: The Contractor shall provide the ability to establish documented, uniform parameters that may be accessed consistently by authorized BIDM users utilizing various BIDM tools.

16.12.1. Contractor Approach: The Contractor shall provide the ability to establish documented, uniform parameters that may be accessed consistently by authorized BIDM users utilizing various BIDM tools. This shall include the ability to contain parameters within a tool in a central location in that tool.

16.12.2. Requirement Stage: BIDM Implementation Contract Stage III

16.13. Reference #3215: The Rules Engine shall enable policies, rules, and operational decisions to be defined, tested, executed, and maintained separately from the application code.

16.13.1. Contractor Approach: The Rules Engine Functionality shall enable policies, rules, and operational decisions to be defined, tested, executed, and maintained separately from the application code. The BIDM development environment shall allow for the versioning of new rules. Rules shall be able to be defined and tested in environments isolated from production until they are migrated into production.

16.13.2. Requirement Stage: BIDM Implementation Contract Stage III

16.14. Reference #3216: The Contractor shall provide functionality for Contractor and authorized Department staff to validate and test rule changes prior to implementation and to provide the ability to revert to a prior version of the rules if there are unwanted or unintended consequences of a rule change.

16.14.1. Contractor Approach: The Contractor shall provide functionality for Contractor and authorized Department staff to validate and test rule changes prior to implementation and to provide the ability to revert to a prior version of the rules if there are unwanted or unintended consequences of a rule change.

16.14.2. Requirement Stage: BIDM Implementation Contract Stage III

16.15. Reference #3217: The Contractor shall provide the ability for authorized BIDM users to apply identifying codes to any record based on Rules Engine criteria, such as data tagging capabilities.

16.15.1. Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to apply identifying codes to any record based on Rules Engine criteria, such as data tagging capabilities. Users shall be able to perform this function either by using derived fields in the various BI tools or by using a system, such as Informatica.

16.15.2. Requirement Stage: BIDM Implementation Contract Stage III

16.16. Reference #3218: The Contractor shall provide the ability to associate providers with their clients and clients with their providers to view those relationships and to access all associated data, including, but not limited to, client records, provider records, prior authorizations, client case management data, and claim/encounter records when accessing any one of them in the BIDM.

16.16.1. Contractor Approach: The Contractor shall provide the ability to associate providers with their clients and clients with their providers to view those relationships and to access all associated data, including, but not limited to, client records, provider records, prior authorizations, client case management data, and claim/encounter records when accessing any one of them in the BIDM.

16.16.2.   Requirement Stage: BIDM Implementation Contract Stage II

16.17.   Reference #3219: The Contractor shall provide a graphical front-end to the Rules Engine enabling Department designated users to easily create, update, connect and apply rules, as well as to view active and inactive rules.

16.17.1.   Contractor Approach: The Contractor shall provide a graphical front-end to the Rules Engine Functionality enabling Department designated users to easily create, update, connect and apply rules, as well as to view active and inactive rules. The Contractor shall provide the ability for users to transform data into the form needed by BIDM analytic applications. The Contractor shall provide a graphical development environment that will facilitate the production of new rules

16.17.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.18.   Reference #3220: The Contractor shall provide tracking and reporting of rule usage, exception usage, and when the rules fail to work as designed, and provide recommendations to resolve rule failure.

16.18.1.   Contractor Approach: The Contractor shall provide tracking and reporting of rule usage, exception usage, and when the rules fail to work as designed, and provide recommendations to resolve rule failure. The Rules Engine Functionality shall provide monitoring functionality, so rules can be traced during their execution. This monitoring function shall generate process metadata that can be used to debug rule failures or unexpected results.

16.18.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.19.   Reference #3221: The Contractor shall provide the ability to schedule implementation of rules into the BIDM.

16.19.1.   Contractor Approach: The Contractor shall provide the ability to schedule implementation of rules into the BIDM. The Rules Engine Functionality shall include a workflow and scheduling component that can easily accommodate new rules as they arise.

16.19.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.20.   Reference #3222: The Contractor shall provide the ability to clone rules, modify them and then implement them as new separate rules.

16.20.1.   Contractor Approach: The Contractor shall provide the ability to clone rules, modify them and then implement them as new separate rules. The Rules Engine Functionality shall enable users to clone and modify rules.

16.20.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.21.   Reference #3223: The Contractor shall provide the ability to link providers, owners, people who have a controlling interest, managing employees, agents, sub-contractors, and associated entities that is provided through the interface with the Core MMIS.

16.21.1.   Contractor Approach: The Contractor shall provide the ability to link providers, owners, people who have a controlling interest, managing employees, agents, sub-contractors, and associated entities that is provided through the interface with the Core MMIS. The Rules Engine Functionality shall be able to define "golden records" for entities such as members, providers, and facilities. Once these "golden records" are established, they shall be able to be linked to other entities in the data model using conformed dimensions.

16.21.2.   Requirement Stage: BIDM Implementation Contract Stage III

16.22. Reference #3224: The Contractor shall provide the ability, for both the Contractor and Department authorized BIDM users, to troubleshoot and debug data processing errors in the BIDM, including the Rules Engine Functionality, such as if a user-input change was not accepted by the BIDM or if a value was changed within the BIDM without authorization.

16.22.1. Contractor Approach: The Contractor shall provide the ability, for both the Contractor and Department authorized BIDM users, to troubleshoot and debug data processing errors in the BIDM, including the Rules Engine Functionality, such as if a user-input change was not accepted by the BIDM or if a value was changed within the BIDM without authorization. The Rules Engine Functionality shall provide comprehensive debugging tools to support the identification and correction of rule errors.

16.22.2. Requirement Stage: BIDM Implementation Contract Stage III

16.23. Reference #3225: The Contractor shall provide the ability for the Rules Engine Functionality to link unique identifiers provided by the Core MMIS and CORE.

16.23.1. Contractor Approach: The Contractor shall provide the ability for the Rules Engine Functionality to link unique identifiers provided by the Core MMIS and CORE. The BIDM shall support conformed dimensions. These dimensions shall enable the linkage of entities using unique identifiers, as supported by data quality and completeness.

16.23.2. Requirement Stage: BIDM Implementation Contract Stage III

16.24. Reference #3226: The Contractor shall provide the ability, via Rules Engine or other method, to link clinical Electronic Health Record (EHR) information to client, claims/encounter, provider data within the BIDM.

16.24.1. EHR data may be submitted by the Colorado Regional Health Information Organization (CORHIO), QHN or other entities in the State that manage clinical data. The Contractor shall link the data using an established client ID or other commonly defined data elements.

16.24.2. Contractor Approach: The Contractor shall provide the ability, via Rules Engine or other method, to link clinical EHR information to client, claims/encounter, provider data within the BIDM. EHR data may be submitted by CORHIO, QHN or other entities in the State that manage clinical data. The Contractor shall link the data using an established client ID or other commonly defined data elements.

16.24.2.1. The Rules Engine Functionality shall be able to define "golden records" for entities such as members, providers, and facilities. Once these "golden records" are established, they shall be able to be linked to other entities in the data model using conformed dimensions. This shall enable users to link clinical data from CORHIO, QHN, or similar entities with the administrative data in the BIDM.

16.24.3. Requirement Stage: BIDM Implementation Contract Stage III

16.25. Reference #3227: The Contractor shall provide the ability for authorized BIDM users to query and report on using the identifying codes as applied to any record assigned through the Rule Engine.

16.25.1. Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to query and report on using the identifying codes as applied to any record assigned through the Rule Engine. Data added to a record shall be immediately accessible to any number of BI tools used for the BIDM, such as Cognos and SAS.

16.25.2. Requirement Stage: BIDM Implementation Contract Stage III

16.26. Reference #3228: The Contractor shall provide the ability for the Rules Engine to be applied to any data in the BIDM that has been imported through a BIDM Interface or BIDM Data Exchange.

16.26.1. Contractor Approach: The Contractor shall provide the ability for the Rules Engine to be applied to any data in the BIDM that has been imported through a BIDM Interface or BIDM Data Exchange. The Rules Engine Functionality shall provide built-in connectors and transformations. The tool shall be able to access imported data and then apply the information to target data stores within the BIDM.

16.26.2. Requirement Stage: BIDM Implementation Contract Stage III

16.27. Reference #3229: The Contractor shall provide the ability to generate discrete data sets based on the Rules Engine.

16.27.1. Contractor Approach: The Contractor shall provide the ability to generate discrete data sets based on the Rules Engine. The Rules Engine Functionality shall produce discrete data sets based on defined criteria, so long as that data exists within the BIDM.

16.27.2. Requirement Stage: BIDM Implementation Contract Stage III

16.28. Reference #3230: The Contractor shall provide the ability for authorized BIDM users to develop rules that will identify clients who may have specified conditions, such as pregnancy or obesity, but who have not been diagnosed.

16.28.1. Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to develop rules that will identify clients who may have specified conditions, such as pregnancy or obesity, but who have not been diagnosed. As long as the data exists within the BIDM, users shall be able to define the rules that help identify specific conditions or at-risk populations, using Informatica or BIDM analytic tools.

16.28.2. Requirement Stage: BIDM Implementation Contract Stage III

16.29. Reference #3231: The Contractor shall provide the ability to associate clients with their households and other members of the household, and associate children with their parents/guardians where available.

16.29.1. Contractor Approach: The Contractor shall provide the ability to associate clients with their households and other members of the household, and associate children with their parents/guardians where available. The Rules Engine Functionality shall be able to define "golden records" for entities such as members, providers, and facilities. Once these "golden records" are established, they shall be able to be linked to other entities in the data model using conformed dimensions. Using business rules, the Rules Engine Functionality shall be able to be configured to identify households and family members within those households.

16.29.2. Requirement Stage: BIDM Implementation Contract Stage III

16.30. Reference #3232: The Contractor shall provide the ability to maintain historical associations and changes in those associations that are date sensitive for analysis and reporting.

16.30.1. Contractor Approach: The Contractor shall provide the ability to maintain historical associations and changes in those associations that are date sensitive for analysis and reporting. The BIDM Data Warehouse data model shall contain Type 1, 2, or 3 slowly changing dimensions. These dimensions are best practices for tracking changes to entities over time.

16.30.2. Requirement Stage: BIDM Implementation Contract Stage III

16.31. Reference #3233: The Contractor shall provide a process for a built-in multi-level rule review and approval process that will validate logic errors, conflicts, redundancy and incompleteness across business rules to identify any conflicts in business rules as they are being developed, tested, and implemented.

16.31.1. Contractor Approach: The Contractor shall provide a process for a built-in multi-level rule review and approval process that will validate logic errors, conflicts, redundancy and incompleteness across business rules to identify any conflicts in business rules as they are being developed, tested, and implemented. Business rule changes shall follow approved Change Management Plan. New business rules shall undergo unit, integration, performance, and regression testing. Only after passing this cycle of testing shall rules be promoted to the production environment.

16.31.2. Requirement Stage: BIDM Implementation Contract Stage III

16.32. Reference #3234: The Contractor shall provide the ability for authorized BIDM users to apply the Rules Engine to user created tables in the Sandbox.

16.32.1. Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to apply the Rules Engine Functionality to user created tables in the Sandbox. Users shall have access to the objects in their schemas and will be able to apply the rules within the Sandbox environment. They shall be able to use tools, such as Informatica, to configure and test out new business rules to ensure that they are behaving as expected.

16.32.2. Requirement Stage: BIDM Implementation Contract Stage III

16.33. Reference #3235: The Contractor shall provide the ability to apply the Rules Engine to any data field in the BIDM.

16.33.1. Contractor Approach: The Contractor shall provide the ability to apply the Rules Engine to any data field in the BIDM. Users shall be able to access and apply tool-derived rules, such as those in Informatica, to any object to which they have authorized access.

16.33.2. Requirement Stage: BIDM Implementation Contract Stage III

16.34. Reference #3236: The Contractor shall provide the ability, via Rules Engine or other method, to link data from Case Management System that is transmitted through the interface with the Core MMIS to other data in the BIDM.

16.34.1. The Contractor shall link data using an established client ID or other commonly defined data element.

16.34.2. Contractor Approach: The Contractor shall provide the ability, via Rules Engine Functionality or other method, to link data from Case Management System that is transmitted through the interface with the Core MMIS to other data in the BIDM. The Contractor shall link data using an established client ID or other commonly defined data element.

16.34.2.1. The Rules Engine Functionality shall be able to define "golden records" for entities such as members, providers, and facilities. As information is pulled from the MMIS and the Case Management System, member and provider records shall be cleansed, standardized, and checked for duplicates, ultimately linking these items to the appropriate "golden record" within the BIDM. This process shall allow authorized users to link these records to appropriate claims and other information within the BIDM.

16.34.3. Requirement Stage: BIDM Implementation Contract Stage III

16.35. Reference #3237: The Contractor shall provide the ability within the Rules Engine for authorized BIDM users to create and maintain parameters associated with rate-related risk corridors, such as plus or minus a certain percentage or set dollar amount of risk around a capitated rate, in relation to partial risk rate setting.

16.35.1. Contractor Approach: The Contractor shall provide the ability within the Rules Engine Functionality for authorized BIDM users to create and maintain parameters associated with rate-related risk corridors, such as plus or minus a certain percentage or set dollar amount of risk around a capitated rate, in relation to partial risk rate setting.

16.35.2. Requirement Stage: BIDM Implementation Contract Stage III

16.36. Reference #3238: The Contractor shall provide the ability within the Rules Engine for authorized BIDM users to create and maintain parameters associated with rate-related stop-loss arrangements, in relation to partial risk rate setting.

16.36.1. Contractor Approach: The Contractor shall provide the ability within the Rules Engine Functionality for authorized BIDM users to create and maintain parameters associated with rate-related stop-loss arrangements, in relation to partial risk rate setting.

16.36.2. Requirement Stage: BIDM Implementation Contract Stage III

16.37. Reference #3239: The Contractor shall provide the ability to link providers and contractors based on potential relationships and conflicts of interest.

16.37.1. Contractor Approach: The Contractor shall provide the ability to link providers and contractors based on potential relationships and conflicts of interest. The Rules Engine Functionality shall include built-in rules for identifying relationships between providers and other entities, including contractors, as well as algorithms for scoring the likelihood of potential fraud or abuse based on these relationships.

16.37.2. Requirement Stage: BIDM Implementation Contract Stage III

16.38. Reference #3240: The Contractor shall provide a solution that will link, when possible, pharmacy claims/encounters to the prescribing claim, using data from multiple other systems.

16.38.1. Contractor Approach: The BIDM shall link, when possible, pharmacy claims/encounters to the prescribing claim, using data from multiple other systems. In addition to linkages established using the Rules Engine Functionality and the BI tools, the BIDM shall link pharmacy claims to episodes of care, based on dates of service and business rules on the relationship of NDC codes to diagnostic conditions.

16.38.2. Requirement Stage: BIDM Implementation Contract Stage II

16.39. Reference #3241: The Contractor shall integrate drug rebate information with other BIDM data via the Rules Engine or other method.

16.39.1. The Contractor shall link this data using an established client ID or other commonly defined data element.

16.39.2. Contractor Approach: The Contractor shall integrate drug rebate information with other BIDM data via the Rules Engine Functionality or other method. The Contractor shall link this data using an established client ID or other commonly defined data element. The Rules Engine Functionality shall be able to establish "golden records" for clients/members. Once these "golden records" are established, they shall be able to be linked to other entities in the data model.

16.39.3.   Requirement Stage: BIDM Implementation Contract Stage II

17. SYSTEM INTERFACES AND DATA EXCHANGES

17.1.   Reference #3242: The Contractor shall support the exchange of data with BIDM Interfaces and BIDM Data Exchanges between the BIDM and systems with which it interfaces and data exchanges to facilitate business functions that meet the requirements of Department policy, and federal and State rules and regulations.

17.1.1.   Contractor Approach: The Contractor shall support the exchange of data with BIDM Interfaces and BIDM Data Exchanges between the BIDM and the source systems to facilitate business functions that meet the requirements of Department policy, and federal and State rules and regulations. The Contractor shall implement the Rules Engine Functionality to handle many different data formats and respond quickly to unexpected data events. Where possible database changes shall be captured real-time from those systems that require that frequency of update so long as the various source systems will have key record information that will make it possible to link the information to client records within the BIDM.

17.1.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.2.   Reference #3243: The Contractor shall capture, in the BIDM, all data that is transmitted through BIDM Data Exchanges.

17.2.1.   Contractor Approach: The Contractor shall capture, in the BIDM, all data that is transmitted through BIDM Data Exchanges by utilizing a best-in-class data integration platform to deliver a comprehensive management and monitoring environment for aggregating, exchanging, and sharing data.

17.2.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.3.   Reference #3244: The BIDM shall transmit all appropriate data through BIDM Data Exchanges as specified in the Interface Control Document (ICD).

17.3.1.   Contractor Approach: The BIDM shall transmit all appropriate data through BIDM Data Exchanges as specified in the ICD. An ICD shall be completed for each source system for which a data interface or exchange is required.

17.3.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.4.   Reference #3245: The Contractor shall develop, document, and establish a BIDM Data Exchange with the Department's incumbent contractor that implements a BIDM Import of the weekly updates to the MMIS Decision Support System (DSS).

17.4.1.   This BIDM Import shall be comprised of all of the following:

17.4.1.1.   All claims/encounters adjudicated the previous week with records appended to claims tables

17.4.1.2.   A complete refresh of client, provider, and reference data each week

17.4.1.3.   On a monthly basis, appending one record for each client with at least one day of eligibility in the previous month to the Client Monthly Reports table.

17.4.1.4.   This import shall be effective from early in BIDM Implementation Contract Stage I through the end of parallel testing and operations.

17.4.2.   Contractor Approach: The Contractor shall develop, document, and establish a BIDM Data Exchange with the Department's incumbent contractor that implements a BIDM Import of the weekly updates to the MMIS DSS.

17.4.2.1. This BIDM Import shall be comprised of all of the following:

17.4.2.1.1. All claims/encounters adjudicated the previous week with records appended to claims tables

17.4.2.1.2. A complete refresh of client, provider, and reference data each week

17.4.2.1.3. On a monthly basis, appending one record for each client with at least one day of eligibility in the previous month to the Client Monthly Reports table.

17.4.2.1.4. This import shall be effective from early in BIDM Implementation Contract Stage I through the end of parallel testing and operations.

17.4.3. Requirement Stage: BIDM Implementation Contract Stage I

17.5. Reference #3246: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the All Payer Claims Database (APCD).

17.5.1. This exchange shall occur on a period as determined by the Department.

17.5.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the APCD. Contractor shall include the required data in the BIDM System.

17.5.2.1. This exchange shall occur on a period as determined by the Department.

17.5.3. Requirement Stage: BIDM Implementation Contract Stage III

17.6. Reference #3247: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Colorado Immunization Information System (CIIS).

17.6.1. This exchange shall occur on a period as determined by the Department.

17.6.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the CIIS.

17.6.3. Requirement Stage: BIDM Implementation Contract Stage III

17.7. Reference #3248: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Vital Records Section.

17.7.1. This shall occur at least monthly until an automated process can be established with CDPHE.

17.7.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Vital Records Section

17.7.2.1. This shall occur at least monthly until an automated process can be established with CDPHE.

17.7.3. Requirement Stage: BIDM Implementation Contract Stage II

17.8. Reference #3249: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to BIDM Data Exchange Partners associated with the Public Assistance Reporting Information System (PARIS).

17.8.1. This exchange shall occur on a period as determined by the Department.

17.8.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to BIDM Data Exchange Partners associated with PARIS.

17.8.2.1.   This exchange shall occur on a period as determined by the Department.

17.8.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.9.   Reference #3250: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports and to send BIDM Exports associated with the Medicare-Medicaid Data Match Program (Medi-Medi).

17.9.1.   This exchange shall occur on a period as determined by the Department.

17.9.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports and to send BIDM Exports associated with the Medicare-Medicaid Data Match Program (Medi-Medi).

17.9.2.1.   This exchange shall occur on a period as determined by the Department.

17.9.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.10.   Reference #3251: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's Acute Care Utilization Review contractors.

17.10.1.   This exchange shall occur on a period as determined by the Department.

17.10.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's Acute Care Utilization Review contractors

17.10.2.1.   This exchange shall occur on a period as determined by the Department.

17.10.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.11.   Reference #3252: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's Post Pay Recoveries contractor.

17.11.1.   This exchange shall occur on a period as determined by the Department.

17.11.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's Post Pay Recoveries contractor

17.11.2.1.   This exchange shall occur on a period as determined by the Department.

17.11.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.12.   Reference #3253: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's Drug Utilization Review (DUR) contractor.

17.12.1.   This exchange shall occur on a period as determined by the Department.

17.12.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's DUR contractor.

17.12.2.1.   This exchange shall occur on a period as determined by the Department

17.12.3.   Requirement Stage: BIDM Implementation Contract Stage II

17.13.	Reference #3254: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's Provider Web Portal contractor.

17.13.1.	This exchange shall occur on a period as determined by the Department.

17.13.2.	Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's Provider Web Portal contractor

17.13.2.1.	This exchange shall occur on a period as determined by the Department.

17.13.3.	Requirement Stage: BIDM Implementation Contract Stage III

17.14.	Reference #3255: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Colorado Nurse Home Visitor Program (NHVP).

17.14.1.	Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the NHVP.

17.14.2.	Requirement Stage: BIDM Implementation Contract Stage III

17.15.	Reference #3256: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Breast and Cervical Cancer Program (BCCP).

17.15.1.	This exchange shall occur on a period as determined by the Department.

17.15.2.	Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's BCCP.

17.15.2.1.	This exchange shall occur on a period as determined by the Department.

17.15.3.	Requirement Stage: BIDM Implementation Contract Stage III

17.16.	Reference #3257: The Contractor shall develop, document, and implement BIDM Data Exchanges to send BIDM Exports to the Colorado Central Cancer Registry.

17.16.1.	This exchange shall occur on a period as determined by the Department.

17.16.2.	Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to send BIDM Exports to the Colorado Central Cancer Registry.

17.16.2.1.	This exchange shall occur on a period as determined by the Department.

17.16.3.	Requirement Stage: BIDM Implementation Contract Stage III

17.17.	Reference #3258: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Colorado Trauma Registry.

17.17.1.	This exchange shall occur on a period as determined by the Department.

17.17.2.	Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Colorado Trauma Registry.

17.17.2.1.	This exchange shall occur on a period as determined by the Department.

17.17.3.	Requirement Stage: BIDM Implementation Contract Stage III

17.18.	Reference #3259: Develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from of Preadmission Screening and Resident Review data from the contractor or contractors performing the Department's Long-term Care Utilization Review activities.

17.18.1.	This exchange shall occur on a period as determined by the Department.

17.18.2.	Contractor Approach: Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from of Preadmission Screening and Resident Review data from the contractor or contractors performing the Department's Long-term Care Utilization Review activities.

17.18.3.	Requirement Stage: BIDM Implementation Contract Stage II

17.19.	Reference #3260: The BIDM shall capture and maintain current and historical Colorado Client Assessment Record (CCAR) data, from the CDHS, Division of Behavioral Health, and make it available to authorized BIDM users for querying, analysis, and reporting.

17.19.1.	This exchange shall occur on at least an annual basis.

17.19.2.	Contractor Approach: The BIDM shall capture and maintain current and historical CCAR data, from the CDHS, Division of Behavioral Health, and make it available to authorized BIDM users for querying, analysis, and reporting.

17.19.2.1.	This exchange shall occur on at least an annual basis.

17.19.3.	Requirement Stage: BIDM Implementation Contract Stage III

17.20.	Reference #3261: The BIDM shall capture and maintain current and historical Mental Health Statistics Improvement Program (MHSIP) Survey Data, from the CDHS, Division of Behavioral Health and make it available to authorized BIDM users for querying, analysis, and reporting.

17.20.1.	This exchange shall occur on at least an annual basis.

17.20.2.	Contractor Approach: The BIDM shall capture and maintain current and historical MHSIP Survey Data, from the CDHS, Division of Behavioral Health and make it available to authorized BIDM users for querying, analysis, and reporting.

17.20.2.1.	This exchange shall occur on at least an annual basis.

17.20.3.	Requirement Stage: BIDM Implementation Contract Stage III

17.21.	Reference #3262: The BIDM shall capture and maintain current and historical Youth Services Survey for Families (YSS-F) Survey Data, from the DHS, Division of Behavioral Health, and make it available to authorized BIDM users for querying, analysis, and reporting.

17.21.1.	This exchange shall occur on at least an annual basis.

17.21.2.	Contractor Approach: The BIDM shall capture and maintain current and historical YSS-F Survey Data, from the DHS, Division of Behavioral Health, and make it available to authorized BIDM users for querying, analysis, and reporting.

17.21.2.1.	This exchange shall occur on at least an annual basis.

17.21.3.	Requirement Stage: BIDM Implementation Contract Stage III

17.22.	Reference #3263: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's Non-Emergency Medical Transportation (NEMT) contractor.

17.22.1.   This exchange shall occur on a period as determined by the Department.

17.22.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's NEMT contractor.

17.22.2.1.   This exchange shall occur on a period as determined by the Department.

17.22.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.23.   Reference #3264: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's claims review contractors.

17.23.1.   This exchange shall occur on a period as determined by the Department.

17.23.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Department's claims review contractors.

17.23.2.1.   This exchange shall occur on a period as determined by the Department.

17.23.3. Requirement Stage: BIDM Implementation Contract Stage III

17.24.   Reference #3265: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Sexually Transmitted Infections/HIV (STI/HIV) Program on at least a monthly basis.

17.24.1.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's STI/HIV Program on at least a monthly basis.

17.24.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.25.   Reference #3266 The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Birth Defects Registry on at least a monthly basis.

17.25.1.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Birth Defects Registry on at least a monthly basis.

17.25.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.26.   Reference #3267: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Oral Health Program.

17.26.1.   This exchange shall occur on a period as determined by the Department.

17.26.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Oral Health Program

17.26.2.1.   This exchange shall occur on a period as determined by the Department.

17.26.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.27. Reference #3268: The Contractor shall develop, document, and implement BIDM Data Exchanges, both BIDM Imports and BIDM Exports, with the federal Payment Error Rate Measurement (PERM) contractors.

17.27.1. This exchange shall occur on a period as determined by the Department.

17.27.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges, both BIDM Imports and BIDM Exports, with the federal PERM contractors.

17.27.3. Requirement Stage: BIDM Implementation Contract Stage II

17.28. Reference #3269: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Maternal, Infant, and Early Childhood Home Visiting program (MIECHV).

17.28.1. This exchange shall occur on a period as determined by the Department.

17.28.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the MIECHV.

17.28.2.1. This exchange shall occur on a period as determined by the Department.

17.28.3. Requirement Stage: BIDM Implementation Contract Stage III

17.29. Reference #3270: The Contractor and BIDM Exchange Partners will review and when necessary adjust periodicity annually.

17.29.1. Contractor Approach: The Contractor and BIDM Exchange Partners shall review and when necessary adjust periodicity annually. If there is an increase in the number of real-time interfaces, the Contractor shall assess the impact of that increase on the existing infrastructure and make recommendations regarding required changes. These changes shall follow the Change Management Process, and work shall not be performed until the change has been approved by the Department.

17.29.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

17.30. Reference #3271: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Nurse Advice Line.

17.30.1. This exchange shall occur on a period up to daily.

17.30.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Nurse Advice Line.

17.30.3. Requirement Stage: BIDM Implementation Contract Stage III

17.31. Reference #3272: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the various State agencies associated with Early Intervention Services.

17.31.1. This exchange shall occur on a basis determined by the Department.

17.31.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the various State agencies associated with Early Intervention Services.

17.31.2.1. This exchange shall occur on a basis determined by the Department.

17.31.3. Requirement Stage: BIDM Implementation Contract Stage III

17.32. Reference #3273: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the DDD Web system and Reporting System on a period of up to daily.

17.32.1. In the event that the DDD Web system and Reporting System are incorporated into the Core MMIS, then the Contractor's interface with the Core MMIS shall fulfill this requirement.

17.32.2. This exchange shall occur on a period as determined by the Department.

17.32.3. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the DDD Web system and Reporting System on a period of up to daily.

17.32.3.1. In the event that the DDD Web system and Reporting System are incorporated into the Core MMIS, then the Contractor's interface with the Core MMIS shall fulfill this requirement.

17.32.3.2. This exchange shall occur on a period as determined by the Department

17.32.4. Requirement Stage: BIDM Implementation Contract Stage III

17.33. Reference #3274: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and send BIDM Exports to CDPHE's Pregnancy Risk Assessment Monitoring System (PRAMS).

17.33.1. This exchange shall occur on at least a monthly basis.

17.33.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and send BIDM Exports to CDPHE's PRAMS.

17.33.2.1. This exchange shall occur on at least a monthly basis.

17.33.3. Requirement Stage: BIDM Implementation Contract Stage III

17.34. Reference #3275: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Tobacco Cessation Program.

17.34.1. This exchange shall occur on at least a monthly basis.

17.34.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Tobacco Cessation Program.

17.34.2.1. This exchange shall occur on at least a monthly basis

17.34.3. Requirement Stage: BIDM Implementation Contract Stage III

17.35. Reference #3276: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to Colorado Department of Regulatory Affairs (DORA).

17.35.1. This exchange shall occur on a period as determined by the Department.

17.35.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to DORA.

17.35.2.1. This exchange shall occur on a period as determined by the Department

17.35.3. Requirement Stage: BIDM Implementation Contract Stage III

17.36. Reference #3277: The BIDM shall capture and maintain current and historical Drug/Alcohol Coordinated Data System (DACODS) data from the CDHS, Division of Behavioral Health and make it available to authorized BIDM users for querying, analysis, and reporting.

17.36.1. Contractor Approach: The BIDM shall capture and maintain current and historical DACODS data from the CDHS, Division of Behavioral Health and make it available to authorized BIDM users for querying, analysis, and reporting.

17.36.2. Requirement Stage: BIDM Implementation Contract Stage III

17.37. Reference #3278: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to BIDM Data Exchange Partners associated with the Department's Hospital Back Up (HBU) databases.

17.37.1. This exchange shall occur on a period as determined by the Department.

17.37.2. Contractor Approach: The Contractor shall incorporate data from the BIDM Data Exchange as defined in the DSD. The BIDM shall maintain the data and provide the ability for authorized BIDM users to query, analyze, and report on the data.

17.37.3. Requirement Stage: BIDM Implementation Contract Stage III

17.38. Reference #3279: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from BIDM Data Exchange Partners associated with the Department's HBU program cost reports.

17.38.1. This exchange shall occur on a period as determined by the Department.

17.38.2. Contractor Approach: The Contractor shall incorporate data from the BIDM Data Exchange as defined in the DSD. The BIDM shall maintain the data and provide the ability for authorized BIDM users to query, analyze, and report on the data.

17.38.3. Requirement Stage: BIDM Implementation Contract Stage III

17.39. Reference #3280: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the CDPHE's Vaccines for Children program.

17.39.1. This exchange shall occur quarterly, except for data for children up to and including age 18, which shall occur semi-annually as directed by the Department.

17.39.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the CDPHE's Vaccines for Children program.

17.39.2.1. This exchange shall occur quarterly, except for data for children up to and including age 18, which shall occur semi-annually as directed by the Department.

17.39.3. Requirement Stage: BIDM Implementation Contract Stage III

17.40. Reference #3281: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Health Facilities and Emergency Medical Services Division to obtain survey certification and licensure.

17.40.1. This exchange shall occur on a period as determined by the Department.

17.40.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Health Facilities and Emergency Medical Services Division to obtain survey certification and licensure.

17.40.2.1. This exchange shall occur on a period as determined by the Department.

17.40.3. Requirement Stage: BIDM Implementation Contract Stage III

17.41. Reference #3282: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from a BIDM Export of BIDM clients to CMS' Long-Term Care Minimum Data Set (LTCMDS).

17.41.1. This exchange shall occur annually once all Department/CMS agreements are in place, as determined by the Department.

17.41.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from a BIDM Export of BIDM clients to LTCMDS.

17.41.2.1. This exchange shall occur annually once all Department/CMS agreements are in place, as determined by the Department.

17.41.3. Requirement Stage: BIDM Implementation Contract Stage III

17.42. Reference #3283: The Contractor shall develop, document, and implement BIDM Data Exchanges for the Automated System Program and Eligibility Network (ASPEN).

17.42.1. This exchange shall occur annually once all Department/CMS agreements are in place, as determined by the Department.

17.42.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges for ASPEN.

17.42.2.1. This exchange shall occur annually once all Department/CMS agreements are in place, as determined by the Department.

17.42.3. Requirement Stage: BIDM Implementation Contract Stage III

17.43. Reference #3284: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Colorado Vital Information System (COVIS).

17.43.1. This exchange shall occur weekly once the Department, the Contractor and CDPHE are able to establish an automated process for sending client lists to and obtaining matches from the COVIS, as determined by the Department.

17.43.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to COVIS.

17.43.2.1. This exchange shall occur weekly once the Department, the Contractor and CDPHE are able to establish an automated process for sending client lists to and obtaining matches from the COVIS, as determined by the Department

17.43.3. Requirement Stage: BIDM Implementation Contract Stage III

17.44. Reference #3285: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Division of Youth Corrections' system(s).

17.44.1. This exchange shall occur on a period as determined by the Department.

17.44.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Division of Youth Corrections' system(s).

17.44.2.1. This exchange shall occur on a period as determined by the Department.

17.44.3. Requirement Stage: BIDM Implementation Contract Stage III

17.45. Reference #3286: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the State Automated Child Welfare Information System (SACWIS), also known as the Trails System.

17.45.1. This exchange shall occur on a period as determined by the Department.

17.45.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the SACWIS, also known as the Trails System.

17.45.2.1. This exchange shall occur on a period as determined by the Department.

17.45.3. Requirement Stage: BIDM Implementation Contract Stage III

17.46. Reference #3287: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Short Term Intensive Residential Remediation Treatment (STIRRT) program.

17.46.1. This exchange shall occur on a period as determined by the Department.

17.46.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the STIRRT program.

17.46.2.1. This exchange shall occur on a period as determined by the Department.

17.46.3. Requirement Stage: BIDM Implementation Contract Stage III

17.47. Reference #3288: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's Colorado Electronic Disease Reporting System (CEDRS).

17.47.1. This exchange shall occur on a period as determined by the Department.

17.47.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDPHE's CEDRS.

17.47.2.1. This exchange shall occur on a period as determined by the Department

17.47.3. Requirement Stage: BIDM Implementation Contract Stage III

17.48. Reference #3289: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports related to CDPHE administered surveys, such as the Colorado Health Survey, Colorado Child Health Survey and Colorado Behavioral Risk Factor Surveillance System (BRFSS).

17.48.1. This exchange shall occur on a period as determined by the Department.

17.48.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports related to CDPHE administered surveys, such as the Colorado Health Survey, Colorado Child Health Survey and BRFSS.

17.48.2.1.   This exchange shall occur on a period as determined by the Department

17.48.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.49.   Reference #3290: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Colorado Department of Corrections (CDOC).

17.49.1.   This exchange shall occur on a period as determined by the Department.

17.49.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CDOC.

17.49.2.1.   This exchange shall occur on a period as determined by the Department.

17.49.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.50.   Reference #3291: Once the Department has a completed and approved Enrollment Database Customized State Data Use Agreement with CMS, the Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports of and to send BIDM Exports to CMS' Medicare EDB Data Match.

17.50.1.   This exchange shall occur on a period as determined by the Department.

17.50.2.   Contractor Approach: Once the Department has a completed and approved Enrollment Database Customized State Data Use Agreement with CMS, the Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports of and to send BIDM Exports to CMS' Medicare EDB Data Match.

17.50.2.1.   This exchange shall occur on a period as determined by the Department;

17.50.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.51.   Reference #3292: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from CMS' Outcome and Assessment Information Set (OASIS).

17.51.1.   This exchange shall occur annually once all Department/CMS agreements are in place, as determined by the Department.

17.51.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from OASIS.

17.51.2.1.   This exchange shall occur annually once all Department/CMS agreements are in place, as determined by the Department.

17.51.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.52.   Reference #3293: The Contractor shall provide a BIDM Data Exchange between the BIDM and Connect for Health Colorado.

17.52.1.   This exchange shall occur on a period as determined by the Department.

17.52.2.   Contractor Approach: The Contractor shall provide a BIDM Data Exchange between the BIDM and Connect for Health Colorado.

17.52.2.1.   This exchange shall occur on a period as determined by the Department.

17.52.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.53.   Reference #3294: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Health Information Management System.

17.53.1.   This exchange shall occur on a period as determined by the Department.

17.53.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Health Information Management System.

17.53.2.1.   This exchange shall occur on a period as determined by the Department.

17.53.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.54.   Reference #3295: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the CDHS Division of Child Welfare.

17.54.1.   This exchange shall occur on a period as determined by the Department.

17.54.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the CDHS Division of Child Welfare

17.54.2.1.   This exchange shall occur on a period as determined by the Department.

17.54.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.55.   Reference #3296: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Federal Department of Corrections (DOC) and/or Federal Bureau of Prisons.

17.55.1.   This exchange shall occur on a period as determined by the Department.

17.55.2.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to the Federal DOC and/or Federal Bureau of Prisons.

17.55.2.1.   This exchange shall occur on a period as determined by the Department.

17.55.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.56.   Reference #3297: The Contractor shall provide a BIDM Interface between the BIDM and the Colorado Benefits Management Systems Decision Support System (CBMS DSS).

17.56.1.   This exchange shall occur on at least a daily basis.

17.56.2.   Contractor Approach: The Contractor shall provide a BIDM Interface between the BIDM and the CBMS DSS.

17.56.2.1.   This exchange shall occur on at least a daily basis.

17.56.3.   Requirement Stage: BIDM Implementation Contract Stage II

17.57.   Reference #3298: The Contractor shall capture, in the BIDM, any and all data from CBMS-DSS that is transmitted through the interface with the CBMS.

17.57.1.   This interface shall be bi-directional.

17.57.2.   Contractor Approach: The Contractor shall capture, in the BIDM, any and all data from CBMS-DSS that is transmitted through the interface with the CBMS.

17.57.2.1.   This interface shall be bi-directional.

17.57.3.   Requirement Stage: BIDM Implementation Contract Stage II

17.58.   Reference #3299 The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and the CBMS DSS, as described in the DSD.

17.58.1.   Contractor Approach: The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and the CBMS DSS, as described in the DSD.

17.58.2.   Requirement Stage: BIDM Implementation Contract Stage II

17.59.   Reference #3300: The Contractor shall provide a BIDM Interface between the BIDM and the Colorado Operations Resource Engine (CORE).

17.59.1.   This interface shall exchange data on at least a daily basis.

17.59.2.   Contractor Approach: The Contractor shall provide a BIDM Interface between the BIDM and CORE.

17.59.2.1.   This interface shall exchange data on at least a daily basis.

17.59.3.   Requirement Stage: BIDM Implementation Contract Stage II

17.60.   Reference #3301: The Contractor shall include any and all financial data from CORE that is transmitted through the interface with CORE.

17.60.1.   Contractor Approach: The Contractor shall include any and all financial data from CORE that is transmitted through the interface with CORE.

17.60.2.   Requirement Stage: BIDM Implementation Contract Stage II

17.61.   Reference #3302: The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and CORE, as described in the DSD.

17.61.1.   Contractor Approach: The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and CORE, as described in the DSD.

17.61.2.   Requirement Stage: BIDM Implementation Contract Stage II

17.62.   Reference #3303: The Contractor shall include any and all data transmitted from the Core MMIS in the BIDM.

17.62.1.   This interface shall be bi-directional.

17.62.2.   Contractor Approach: The Contractor shall include any and all data transmitted from the Core MMIS in the BIDM.

17.62.2.1.   This interface shall be bi-directional.

17.62.3.   Requirement Stage: BIDM Implementation Contract Stage II

17.63.   Reference #3304: The Contractor shall provide the capability to capture the Trauma Editing – Medical Service Questionnaires (MSQ) and responses from the Core MMIS.

17.63.1.   Contractor Approach: The Contractor shall provide the capability to capture the Trauma Editing – MSQ and responses from the Core MMIS.

17.63.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.64.   Reference #3305: The Contractor shall provide a BIDM Interface between the BIDM and the Core MMIS.

17.64.1. This interface shall exchange data on at least a daily basis.

17.64.2. Contractor Approach: The Contractor shall provide a BIDM Interface between the BIDM and the Core MMIS.

17.64.2.1. This interface shall exchange data on at least a daily basis.

17.64.3. Requirement Stage: BIDM Implementation Contract Stage II

17.65. Reference #3306: The Contractor shall include any and all data from the Case Management System that is transmitted through the interface with the Core MMIS in the BIDM.

17.65.1. Contractor Approach: The Contractor shall include any and all data from the Case Management System that is transmitted through the interface with the Core MMIS in the BIDM.

17.65.2. Requirement Stage: BIDM Implementation Contract Stage II

17.66. Reference #3307: The Contractor shall ensure that all Fiscal Agent Operational data from the interfaces with the Core MMIS and PBMS is captured and accessible by authorized BIDM users through the appropriate software and System Tools.

17.66.1. This shall include reporting and analysis for claims/encounters received, claims/encounters processed, and time between processing.

17.66.2. Contractor Approach: The Contractor shall ensure that all Fiscal Agent Operational data from the interfaces with the Core MMIS and PBMS is captured and accessible by authorized BIDM users through the appropriate software and System Tools.

17.66.3. This shall include reporting and analysis for claims/encounters received, claims/encounters processed, and time between processing.

17.66.4. Requirement Stage: BIDM Implementation Contract Stage II

17.67. Reference #3308: The Contractor shall capture all Fiscal Agent Operational data from the Core MMIS to support reporting and analysis.

17.67.1. Contractor Approach: The Contractor shall capture all Fiscal Agent Operational data from the Core MMIS to support reporting and analysis.

17.67.2. Requirement Stage: BIDM Implementation Contract Stage II

17.68. Reference #3309: The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and the Core MMIS, as described in the DSD.

17.68.1. Contractor Approach: The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and the Core MMIS, as described in the DSD.

17.68.2. Requirement Stage: BIDM Implementation Contract Stage II

17.69. Reference #3310: The Contractor shall provide a BIDM Interface between the BIDM and CORHIO.

17.69.1. Contractor Approach: The Contractor shall provide a daily BIDM Interface between the BIDM and CORHIO.

17.69.2. Requirement Stage: BIDM Implementation Contract Stage III

17.70. Reference #3310a: The Contractor shall develop, document, and implement BIDM Data Exchanges, to obtain BIDM Imports from and to send BIDM Exports to CORHIO.

17.70.1. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to CORHIO, associated with admit, discharge and transfer data.

17.70.2. Requirement Stage: BIDM Implementation Contract Stage III

17.71. Reference #3311: The Contractor shall capture in the BIDM any and all clinical and EHR data from CORHIO that is transmitted through the exchange and interface with CORHIO.

17.71.1. As new data transmission formats are released and adopted by CORHIO, this interface shall be updated through the Change management Process.

17.71.2. Contractor Approach: The Contractor shall capture in the BIDM any and all clinical and EHR data from CORHIO that is transmitted through the interface with CORHIO.

17.71.2.1. As new data transmission formats are released and adopted by CORHIO, this interface shall be updated through the Change Management Process.

17.71.3. Requirement Stage: BIDM Implementation Contract Stage III

17.72. Reference #3312: The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and CORHIO, as described in the DSD.

17.72.1. Contractor Approach: The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and CORHIO, as described in the DSD.

17.72.2. Requirement Stage: BIDM Implementation Contract Stage III

17.73. Reference #3313: The Contractor shall provide a BIDM Interface between the BIDM and the PBMS.

17.73.1. This interface shall exchange data on at least a daily basis.

17.73.2. Contractor Approach: The Contractor shall provide a BIDM Interface between the BIDM and the PBMS.

17.73.2.1. This interface shall exchange data on at least a daily basis.

17.73.3. Requirement Stage: BIDM Implementation Contract Stage II

17.74. Reference #3314: The Contractor shall include any and all data from PBMS that is transmitted through the interface with the PBMS. This includes the capture of all PBMS operational data to support reporting and analysis.

17.74.1. This interface shall be bi-directional.

17.74.2. Contractor Approach: The Contractor shall include any and all data from PBMS that is transmitted through the interface with the PBMS. This includes the capture of all PBMS operational data to support reporting and analysis.

17.74.2.1. This interface shall be bi-directional.

17.74.3. Requirement Stage: BIDM Implementation Contract Stage II

17.75. Reference #3315: The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and the PBMS, as described in the DSD.

17.75.1. Contractor Approach: The Contractor shall provide a real-time or near real-time BIDM Interface between the BIDM and the PBMS, as described in the DSD.

17.75.2. Requirement Stage: BIDM Implementation Contract Stage II

17.76. Reference #3316: The Contractor shall obtain current Federal Poverty Level (FPL) limits by family size used for Medicaid eligibility calculations and add it to the existing historical data, making it available in the BIDM for querying, analysis, and reporting.

17.76.1. This data shall be updated in accordance with the FPLs published in the federal register and the Communication Management Plan.

17.76.2. Contractor Approach: The Contractor shall obtain current FPL limits by family size used for Medicaid eligibility calculations and add it to the existing historical data, making it available in the BIDM for querying, analysis, and reporting.

17.76.2.1. This data shall be updated in accordance with the FPLs published in the federal register and the Communication Management Plan.

17.76.3. Requirement Stage: BIDM Implementation Contract Stage II

17.77. Reference #3317: The Contractor shall populate and maintain in the BIDM historical FPL limits by family size used for Medicaid eligibility calculations and make it available in the BIDM for querying, analysis, and reporting.

17.77.1. Contractor Approach: The Contractor shall populate and maintain in the BIDM historical FPL limits by family size used for Medicaid eligibility calculations and make it available in the BIDM for querying, analysis, and reporting.

17.77.2. Requirement Stage: BIDM Implementation Contract Stage II

17.78. Reference #3318: The Contractor shall obtain current Dual Eligible Standards (i.e., Qualified Medicare Beneficiary (QMB), Specified Low-Income Medicare Beneficiary (SLMB), Qualifying Individuals (QI), Qualified Disabled Working Individuals (QDWI)) for both individuals and couples and add it to the existing historical data, making it available in the BIDM for querying, analysis, and reporting.

17.78.1. The data shall be updated on a schedule agreed to in the Communication Management Plan.

17.78.2. Contractor Approach: The Contractor shall obtain current Dual Eligible Standards (i.e., QMB, SLMB, QI, QDWI) for both individuals and couples and add it to the existing historical data, making it available in the BIDM for querying, analysis, and reporting. The data shall be updated on a schedule agreed to in the Communication Management Plan.

17.78.3. Requirement Stage: BIDM Implementation Contract Stage II

17.79. Reference #3319: The Contractor shall populate and maintain in the BIDM historical Dual Eligible Standards, including QMB, SLMB, QI and QDWI information, for both individuals and couples, making it available for querying, analysis, and reporting.

17.79.1. Contractor Approach: The Contractor shall populate and maintain in the BIDM historical Dual Eligible Standards, including QMB, SLMB, QI and QDWI information, for both individuals and couples, making it available for querying, analysis, and reporting.

17.79.2. Requirement Stage: BIDM Implementation Contract Stage II

17.80. Reference #3320: The Contractor shall obtain current Supplemental Security Income (SSI) Program Rates & Limits from the Department and add the data to the existing historical data, making it available in the BIDM for querying, analysis, and reporting.

17.80.1.   Contractor Approach: The Contractor shall obtain current SSI Program Rates & Limits from the Department and add the data to the existing historical data, making it available in the BIDM for querying, analysis, and reporting.

17.80.2.   Requirement Stage: BIDM Implementation Contract Stage II

17.81.   Reference #3321: The Contractor shall populate and maintain in the BIDM historical SSI Program Rates & Limits, as provided by the Department, making it available for querying, analysis, and reporting.

17.81.1.   Contractor Approach: The Contractor shall populate and maintain in the BIDM historical SSI Program Rates & Limits, as provided by the Department, making it available for querying, analysis, and reporting.

17.81.2.   Requirement Stage: BIDM Implementation Contract Stage II

17.82.   Reference #3322: The BIDM shall capture and maintain Institution for Mental Disease (IMD) inpatient data and make it available for querying, analysis, and reporting.

17.82.1.   Contractor Approach: The BIDM shall capture and maintain IMD inpatient data and make it available for querying, analysis, and reporting.

17.82.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.83.   Reference #3323: The Contractor shall obtain current and historical Medicare rates by service and provider making it available in the BIDM for querying, analysis, and reporting.

17.83.1.   Contractor Approach: The Contractor shall obtain current and historical Medicare rates by service and provider making it available in the BIDM for querying, analysis, and reporting.

17.83.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.84.   Reference #3324: The BIDM shall capture the most recent National Plan and Provider Enumeration System (NPPES) Full Replacement Monthly NPI File and make it available for querying, analysis, and reporting.

17.84.1.   The NPPES data may be fully refreshed each month. The NPPES data are an exception to the 'never delete a record' requirements within this Contract.

17.84.2.   Contractor Approach: The BIDM shall capture the most recent NPPES Full Replacement Monthly NPI File and make it available for querying, analysis, and reporting.

17.84.2.1.   The NPPES data may be fully refreshed each month. The NPPES data are an exception to the 'never delete a record' requirements within this Contract.

17.84.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.85.   Reference #3325: The Contractor shall download the most recent NPPES Full Replacement Monthly NPI File and load the data into the BIDM each month.

17.85.1.   Contractor Approach: The Contractor shall download the most recent NPPES Full Replacement Monthly NPI File and load the data into the BIDM each month

17.85.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.86.   Reference #3326: The Contractor shall upload all the cost report data from the historical Healthcare Provider Cost Reporting Information System (HCRIS) that is available on the CMS website into the BIDM and make the data available for querying, analyzing, and reporting.

17.86.1.   Contractor Approach: The Contractor shall upload all the cost report data from the historical HCRIS that is available on the CMS website into the BIDM and make the data available for querying, analyzing, and reporting.

17.86.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.87.   Reference #3327: On an on-going basis, the Contractor shall upload all the cost report data from the HCRIS that is available on the CMS website into the BIDM and make the data available for querying, analyzing, and reporting.

17.87.1.   The Contractor shall obtain and upload the HCRIS data on a schedule defined in the Communication Management Plan.

17.87.2.   Contractor Approach: On an on-going basis, the Contractor shall upload all the cost report data from the HCRIS that is available on the CMS website into the BIDM and make the data available for querying, analyzing, and reporting.

17.87.2.1.   The Contractor shall obtain and upload the HCRIS data on a schedule defined in the Communication Management Plan.

17.87.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.88.   Reference #3328: The Contractor shall obtain and upload Colorado Indigent Care Program (CICP) reports data into the BIDM and make the data available for querying, analyzing, and reporting.

17.88.1.   The Department will provide historical CICP data to the Contractor.

17.88.2.   Contractor Approach: The Contractor shall obtain and upload CICP reports data into the BIDM and make the data available for querying, analyzing, and reporting.

17.88.2.1.   The Department will provide historical CICP data to the Contractor.

17.88.3.   Requirement Stage: BIDM Implementation Contract Stage III

17.89.   Reference #3329: On an on-going basis, the Contractor shall upload CICP report data into the BIDM and make the data available for querying, analyzing, and reporting. The Contractor shall obtain and upload the CICP report data on a schedule defined in the Communication Management Plan.

17.89.1.   Contractor Approach: On an on-going basis, the Contractor shall upload CICP report data into the BIDM and make the data available for querying, analyzing, and reporting. The Contractor shall obtain and upload the CICP report data on a schedule defined in the Communication Management Plan.

17.89.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.90.   Reference #3330: The BIDM shall capture and maintain current and historical Colorado Health Access Survey (CHAS) data and make it available for querying, analysis, and reporting.

17.90.1.   Contractor Approach: The BIDM shall capture and maintain current and historical CHAS data and make it available for querying, analysis, and reporting.

17.90.2.   Requirement Stage: BIDM Implementation Contract Stage III

17.91.   Reference #3331: The BIDM shall capture and maintain Consumer Assessment of Health Plans Study (CAHPS) survey data and make it available for querying, analysis, and reporting.

17.91.1.   CAHPS data will be provided to the Contractor by the Department or another Department contractor at the discretion of the Department.

17.91.2. Contractor Approach: The BIDM shall capture and maintain CAHPS survey data and make it available for querying, analysis, and reporting.

17.91.2.1. CAHPS data will be provided to the Contractor by the Department or another Department contractor at the discretion of the Department.

17.91.3. Requirement Stage: BIDM Implementation Contract Stage III

17.92. Reference #3332: The BIDM shall capture and maintain SF12 Health Survey data and make it available for querying, analysis, and reporting.

17.92.1. SF12 data will be provided to the Contractor by the Department or another Department contractor at the discretion of the Department.

17.92.2. Contractor Approach: The BIDM shall capture and maintain SF12 Health Survey data and make it available for querying, analysis, and reporting.

17.92.2.1. SF12 data will be provided to the Contractor by the Department or another Department contractor at the discretion of the Department.

17.92.3. Requirement Stage: BIDM Implementation Contract Stage III

17.93. Reference #3333: The Contractor shall upload historical Uniform Cost Report (UCR) data provided by the Department into the BIDM and make the data available for querying, analyzing, and reporting.

17.93.1. The Department will provide the Contractor with historical UCR data.

17.93.2. Contractor Approach: The Contractor shall upload historical UCR data provided by the Department into the BIDM and make the data available for querying, analyzing, and reporting.

17.93.2.1. The Department will provide the Contractor with historical UCR data.

17.93.3. Requirement Stage: BIDM Implementation Contract Stage III

17.94. Reference #3334: On an on-going basis, the Contractor shall obtain UCR data from the Department and upload the data into the BIDM and make the data available for querying, analyzing, and reporting.

17.94.1. The Contractor shall obtain and upload the UCR data on a schedule defined in the Communication Management Plan.

17.94.2. Contractor Approach: On an on-going basis, the Contractor shall obtain UCR data from the Department and upload the data into the BIDM and make the data available for querying, analyzing, and reporting. Uniform Cost Reports shall be submitted periodically to the Department.

17.94.2.1. The Contractor shall obtain and upload the UCR data on a schedule defined in the Communication Management Plan.

17.94.3. Requirement Stage: BIDM Implementation Contract Stage III

17.95. Reference #3335: The Contractor shall capture and maintain all reference files from the Core MMIS and PBMS in the BIDM through the BIDM Interface.

17.95.1. The Contractor shall not be responsible for the licensing of reference files related to this requirement.

17.95.2.	Contractor Approach: The Contractor shall capture and maintain all reference files from the Core MMIS and PBMS in the BIDM through the BIDM Interface.

17.95.2.1.	The Contractor shall not be responsible for the licensing of reference files related to this requirement.

17.95.3.	Requirement Stage: BIDM Implementation Contract Stage II

17.96.	Reference #3336: The Contractor shall ensure that all claims/encounter and client related data from the interfaces with the Core MMIS and PBMS are captured and accessible by authorized BIDM users through the appropriate software and System Tools.

17.96.1.	The Contractor shall update this information at least daily, unless a different time period is agreed to by the Department and the Contractor.

17.96.2.	Contractor Approach: The Contractor shall ensure that all claims/encounter and client related data from the interfaces with the Core MMIS and PBMS are captured and accessible by authorized BIDM users through the appropriate software and System Tools.

17.96.2.1.	The Contractor shall update this information at least daily, unless a different time period is agreed to by the Department and the Contractor.

17.96.3.	Requirement Stage: BIDM Implementation Contract Stage II

17.97.	Reference #3337: The Contractor shall develop, document, and implement a BIDM Data Exchange to obtain imports from and to send exports to the contracted Regional Care Collaborative Organizations (RCCOs).

17.97.1.	The Contractor shall parse raw MMIS claims and eligibility flat files by the RCCOs and upload information to remote, secure FTP sites as specified by the RCCO.

17.97.2.	This exchange shall occur on a period as determined by the Department.

17.97.3.	Contractor Approach: The Contractor shall develop, document, and implement a BIDM Data Exchange to obtain imports from and to send exports to the contracted RCCOs.

17.97.3.1.	The Contractor shall parse raw MMIS claims and eligibility flat files by the RCCOs and upload information to remote, secure FTP sites as specified by the RCCO.

17.97.3.2.	This exchange shall occur on a period as determined by the Department.

17.97.4.	Requirement Stage: BIDM Implementation Contract Stage II

17.98.	Reference #3338: The Contractor shall develop, document, and implement a BIDM Data Exchange to obtain imports from and to send BIDM exports to CMS Electronic Data Interchange (EDI) for Medicare-Medicaid Coordination of Benefit (COBA) transactional data feeds.

17.98.1.	The Contractor shall send a Medicare-Medicaid eligibility file to the CMS contractor and receive bi-weekly transactional data feeds. Contractor shall be responsible for translating feeds into BIDM data structures for use in query, reporting, and analytics.

17.98.2.	This exchange shall occur on a period as determined by the Department.

17.98.3.	Contractor Approach: The Contractor shall send a Medicare-Medicaid eligibility file to the CMS contractor and receive bi-weekly transactional data feeds. Contractor shall be responsible for translating feeds into BIDM data structures for use in query, reporting and analytics.

17.98.3.1.	This exchange shall occur on a period as determined by the Department.

17.98.4.   Requirement Stage: BIDM Implementation Contract Stage II

17.99.   Reference #3339: The Contractor shall develop, document, and implement BIDM Data Exchange to obtain BIDM imports from and to send BIDM exports to CMS Electronic Data Interchange (EDI) for Medicare-Medicaid Part D data feeds.

17.99.1.   This exchange shall occur on a monthly basis.

17.99.2.   In the event that data needs to be translated into BIDM data structures, the Contractor shall translate the feeds into BIDM data structures for use in query, reporting and analytics.

17.99.3.   Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchange to obtain BIDM imports from and to send BIDM exports to CMS EDI for Medicare-Medicaid Part D data feeds.

17.99.3.1.   This exchange shall occur on a monthly basis.

17.99.3.2.   In the event that data needs to be translated into BIDM data structures, the Contractor shall translate the feeds into BIDM data structures for use in query, reporting and analytics.

17.99.4.   Requirement Stage: BIDM Implementation Contract Stage III

18. EXTRACT, TRANSFORM, AND LOAD (ETL) TOOLS

18.1.   Reference #3340: The BIDM shall perform data ETL functionality to integrate data from all sources into a cohesive data warehouse.

18.1.1.   Contractor Approach: The Contractor shall integrate data from the vast array of source systems that will supply the BIDM.

18.1.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.2.   Reference #3341: The BIDM shall perform data ETL functionality to transform data from data warehouse to data marts.

18.2.1.   Contractor Approach: The BIDM shall perform data ETL functionality to transform data from data warehouse to data marts.

18.2.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.3.   Reference #3342: The Contractor shall provide the ability to identify the timestamp when all data was uploaded to the BIDM, including BIDM Interfaces and BIDM Data Exchanges.

18.3.1.   Contractor Approach: The Contractor shall provide the ability to identify the timestamp when all data was uploaded to the BIDM, including BIDM Interfaces and BIDM Data Exchanges.

18.3.2.   Requirement Stage: BIDM Implementation Contract Stage II

18.4.   Reference #3343: The Contractor shall provide the ability to identify the source of data and the timestamp added to the BIDM.

18.4.1.   Contractor Approach: The Contractor shall provide the ability to identify the source of data and the timestamp added to the BIDM.

18.4.2.   Requirement Stage: BIDM Implementation Contract Stage II

18.5.   Reference #3344: The Contractor shall develop and maintain design and specifications documents for each BIDM Interface or BIDM Data Exchange containing any features, functions, or associated logic.

18.5.1.   ICDs shall conform to guidelines in DHHS' Interface Control Practice Guide and CMS' Interface Control Document unless other guidelines and formats are agreed to by the Department.

18.5.2.   Contractor Approach: The contractor shall create ICDs for all data exchanges and interfaces created. These documents shall be created in accordance with Department policies and guidelines.

18.5.3.   Requirement Stage: BIDM Implementation Contract Stage III

18.6.   Reference #3345: The Contractor shall work with the Department, BIDM Interface Partners, and BIDM Exchange Partners to establish agreements, such as Memoranda of Understanding and System Interface Agreements, which document the interface and data exchange expectations.

18.6.1.   ICDs shall conform to guidelines in DHHS' Interface Control Practice Guide and CMS' Interface Control Document unless other guidelines and formats are agreed to by the Department.

18.6.2.   Contractor Approach: The Contractor shall establish agreements, such as Memoranda of Understanding and System Interface Agreements with BIDM Interface Partners and BIDM Exchange Partners, which document the interface and data exchange expectations, as approved by the Department. The Department shall review all disputes between the Contractor and the BIDM Interface Partners and BIDM Exchange Partners related to the established agreements in order to assist the Contractor in resolving those disputes.

18.6.2.1.   The Contractor shall ensure that ICDs conform to guidelines in DHHS' Interface Control Practice Guide and CMS' Interface Control Document unless other guidelines and formats are agreed to by the Department.

18.6.3.   Requirement Stage: BIDM Implementation Contract Stage III

18.7.   Reference #3346: The BIDM shall perform data ETL functionality for all data flowing through a BIDM Interface, a BIDM Data Exchange, or a process for obtaining External Data.

18.7.1.   Contractor Approach: The BIDM shall perform data ETL functionality for all data flowing through a BIDM Interface, a BIDM Data Exchange, or a process for obtaining External Data. The BIDM shall provide a robust data integration and ETL platform on which the Department can integrate data from both internal and external sources.

18.7.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.8.   Reference #3347: The Contractor shall ensure validation and verification of all data fields.

18.8.1.   Contractor Approach: The Contractor shall ensure validation and verification of all data fields. The BIDM shall contain a number of transformations and components to help ensure the quality of the data brought into the warehouse is fit for this purpose. Functions shall include, but is not limited to, performing range validation checking, completeness checking, and record count balancing for all data entering the data warehouse.

18.8.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.9.   Reference #3348: The Contractor shall provide the ability to accept, transform, and load all HIPAA X12 transactions as either a BIDM Interface or BIDM Data Exchange into the BIDM.

18.9.1.   Contractor Approach: The BIDM shall accept, transform, and load all HIPAA X12 transactions.

18.9.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.10. Reference #3349: The Contractor shall provide the ability to accept, transform, and load HL7 transactions as either a BIDM Interface or BIDM Data Exchange into the BIDM.

18.10.1.   Contractor Approach: The BIDM shall accept, transform, and load all HL7 transactions

18.10.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.11.   Reference #3350: The Contractor shall provide the ability to generate and transmit all HIPAA X12 transactions as a BIDM Data Exchange from the BIDM.

18.11.1.   Contractor Approach: The BIDM shall generate and transmit all HIPAA X12 transactions.

18.11.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.12.   Reference #3351: The Contractor shall provide the ability to generate and transmit HL7 transaction as a BIDM Data Exchange from the BIDM.

18.12.1.   Contractor Approach: The BIDM shall generate and transmit all HL7 transactions.

18.12.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.13.   Reference #3352:   The Contractor shall provide the ability to generate and transmit NCPDP transaction as a BIDM Data Exchange from the BIDM.

18.13.1.   Contractor Approach: The BIDM shall generate and transmit NCPDP transactions.

18.13.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.14.   Reference #3353: Provide the ability to report data discrepancies back to the original source.

18.14.1.   Contractor Approach: The Contractor shall provide the ability to report data discrepancies back to the original source. During the ETL process, the Contractor shall gather data quality statistics about a particular data source. In this way, the Contractor shall be able to monitor the quality of the data over time. The scorecard used shall become a communication vehicle with the source data suppliers building a continuous data quality feedback loop.

18.14.2.   Requirement Stage: BIDM Implementation Contract Stage II

18.15.   Reference #3354: The BIDM shall archive raw interface files after sixty (60) calendar days and maintain for up to six (6) months.

18.15.1.   Contractor Approach: The BIDM shall archive raw interface files after sixty (60) calendar days and maintain for up to 6 months.

18.15.2.   Requirement Stage: BIDM Implementation Contract Stage II

18.16.   Reference #3355: The Contractor shall provide the ability to access and reprocess raw BIDM Interface and BIDM Data Exchange files for at least sixty (60) calendar days.

18.16.1.   Contractor Approach: The Contractor shall provide the ability to access and reprocess raw BIDM Interface and BIDM Data Exchange files for at least sixty (60) calendar days.

18.16.2.   Requirement Stage: BIDM Implementation Contract Stage II

18.17.   Reference #3356:   The Contractor shall provide a solution that facilitates the exchange of information by mapping the definition of terms used in the BIDM with comparable terms in systems associated with BIDM Interfaces and BIDM Data Exchanges.

18.17.1.   Contractor Approach: The Contractor shall facilitate the exchange of information by mapping the definition of terms used in the BIDM with comparable terms in systems associated with BIDM Interfaces and BIDM Data Exchanges. Using the capabilities of the BIDM, the Department shall be able to link business terms and entities used to manage the Medicaid agency with your physical implementation in various components of the BIDM Solution. This shall

allow the Department to perform such tasks and impact analysis and data lineage analysis, to better-manage data.

18.17.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.18.   Reference #3357: The Contractor shall make the data provided through the BIDM Interfaces and BIDM Data Exchanges available for analysis in the BIDM and use by System Tools as soon as possible upon receipt.

18.18.1.   For each data type / source, the Department and the Contractor will identify the expected lag time between data availability and the BIDM update. Update frequency will depend on the specific data being obtained, as approved by the Department.

18.18.2.   Contractor Approach: During DDI design phases, the Contractor shall determine the requirements surrounding a specific interface, including, but not limited to, the frequency the data is to be transmitted, directionality of the data, anomalies that can be expected, and anticipated volumes. The Contractor shall use this information to build a robust data interface or exchange with all systems with which the BIDM Solution will interact. The Contractor shall develop the expected time to release new data to end users as part of the Ongoing Support Maintenance Plan.

18.18.3.   Requirement Stage: BIDM Implementation Contract Stage II

18.19.   Reference #3358: The Contractor shall maintain audit trail of all actions performed and any data modifications initiated from the interface feed.

18.19.1.   Contractor Approach: The Contractor shall maintain audit trail of all actions performed and any data modifications initiated from the interface feed. The Contractor shall follow data interface best practices that dictate that audit information be collected and recorded during the ETL Processes used to populate the BIDM with actionable data. This information shall include such data as the name of the process or person making the change, the date and time the change occurred, and the unique process run that generated the change.

18.19.2.   Requirement Stage: BIDM Implementation Contract Stage II

18.20.   Reference #3359: The BIDM shall provide the ability to upload data and reports from the BIDM to the Core MMIS contractor's Case Management Tool.

18.20.1.   Contractor Approach: The BIDM shall provide the ability to upload data and reports from the BIDM to the Core MMIS Contractor's Case Management Tool. This function will be implemented and operated for environments and systems over which the Contractor has contractual responsibility and control.

18.20.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.21.   Reference #3360: The Contractor shall provide the ability to change the attributes, acceptable values, and properties of data fields as needed.

18.21.1.   Contractor Approach: The Contractor shall provide the ability to change the attributes, acceptable values, and properties of data fields as needed through the Change Management Process.

18.21.2.   Requirement Stage: BIDM Implementation Contract Stage III

18.22.   Reference #3361: The Contractor shall provide middleware, such as an interface engine and an integration engine, that allows the BIDM to access and exchange information with BIDM Interfaces and BIDM Data Exchanges.

18.22.1.   Contractor Approach: The Contractor shall provide middleware, such as an interface engine and an integration engine, which allows the BIDM to access and exchange information with BIDM Interfaces and BIDM Data Exchanges.

18.22.2.   Requirement Stage: BIDM Implementation Contract Stage II

18.23.   Reference #3362: The Contractor shall provide middleware, such as an interface engine and an integration engine, which streamlines the building, testing, and deploying of BIDM Interfaces and BIDM Data Exchanges.

18.23.1.   Contractor Approach: The Contractor shall provide middleware, such as an interface engine and an integration engine, which streamlines the building, testing, and deploying of BIDM Interfaces and BIDM Data Exchanges.

18.23.2.   Requirement Stage: BIDM Implementation Contract Stage II

18.24.   Reference #3363: The Contractor shall provide middleware, such as an interface engine and an integration engine, which provides the flexibility to change direction based on configurable events and delivers alerts when an abnormal condition arises.

18.24.1.   Contractor Approach: The Contractor shall provide middleware, such as an interface engine and an integration engine, that provides the flexibility to change direction based on configurable events and delivers alerts when an abnormal condition arises.

18.24.2.   Requirement Stage: BIDM Implementation Contract Stage II

19. SECURE DATA DISSEMINATION

19.1.   Reference #3364: The BIDM shall provide secure, automated transmission of query results and reports to Department designated recipients.

19.1.1.   Contractor Approach: The BIDM shall provide secure, automated transmission of query results and reports to Department designated recipients.

19.1.2.   Requirement Stage: BIDM Implementation Contract Stage II

19.2.   Reference #3365: The BIDM shall provide secure methods of disseminating data that comply with HIPAA and all other Federal and state laws, rules, and regulations.

19.2.1.   Contractor Approach: The Contractors methods of securely disseminating data shall comply with all applicable HIPAA and Federal and state laws, rules, and regulations.

19.2.2.   Requirement Stage: BIDM Implementation Contract Stage II

19.3.   Reference #3366: The BIDM shall provide the ability for authorized BIDM users and Contractor staff to securely exchange large data files through secure, HIPAA compliant protocol, such as sFTP, with other Department contractors, other governmental entities, providers, and stakeholders.

19.3.1.   Contractor Approach: The BIDM shall provide the ability for authorized BIDM users and Contractor staff to securely exchange large data files through secure, HIPAA compliant protocol, such as sFTP, with other Department contractors, other governmental entities, providers, and stakeholders.

19.3.2.   Requirement Stage: BIDM Implementation Contract Stage II

19.4.   Reference #3367: The Contractor shall provide the ability for authorized BIDM users to obtain secure, real-time access to BIDM reports and dashboards, as defined by the Department, securely on their smart phones, tablets, and mobile operating systems.

19.4.1. Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to obtain secure, real-time access to BIDM reports and dashboards, as defined by the Department, securely on supported smart phones, tablets, and mobile operating systems.

19.4.2. Requirement Stage: BIDM Implementation Contract Stage III

19.5. Reference #3368: The BIDM shall enable all assigned Contractor personnel to easily and securely exchange documents and electronic files with the Department in compatible formats.

19.5.1. The Contractor shall maintain compatibility with the same software and version of software as the Department including, but not limited to, the following:

19.5.1.1. Microsoft Word

19.5.1.2. Microsoft Excel

19.5.1.3. Microsoft Project

19.5.1.4. Microsoft Access

19.5.1.5. Microsoft PowerPoint

19.5.2. The Contractor shall upgrade within thirty (30) business days of the Department's notification of upgrade and in conjunction with the Contractor's corporate upgrade standards.

19.5.3. Contractor Approach: The BIDM shall enable all assigned Contractor personnel to easily and securely exchange documents and electronic files with the Department in compatible formats via secure document exchange. Contractor shall upgrade software within thirty (30) business days of the Department's notification of upgrade and in conjunction with the Contractor's corporate upgrade standards.

19.5.4. Requirement Stage: BIDM Implementation Contract Stage II

19.6. Reference #3369: The Contractor shall provide the ability for authorized BIDM users to access and utilize BIDM applications securely on their smart phones, tablets, and mobile operating systems.

19.6.1. Contractor Approach: The Contractor may provide the ability for authorized BIDM users to access and utilize BIDM applications securely on supported smart phones, tablets, and mobile operating systems, at minimum through the business intelligence functionality, such as Cognos.

19.6.2. Requirement Stage: BIDM Implementation Contract Stage III

20. SECURITY AND CONFIDENTIALITY

20.1. Reference #3370: Contractor will have insight into internal policy discussions, contractual issues, price negotiations, State financial information, and advanced knowledge of potential/draft legislation. As a result, the Contractor shall maintain confidentiality and privacy of this information.

20.1.1. Contractor Approach: Contractor shall maintain confidentiality and privacy of the State's and the Department's internal policy discussions, contractual issues, price negotiations, State financial information, and advanced knowledge of potential/draft legislation

20.1.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.2. Reference #3371: The Contractor shall keep all documents, data compilations, reports, computer programs, photographs, and any other work provided to or produced by the Contractor in the performance of the contract confidential until publicly released by the Department or until written permission is granted by the Department for its release.

20.2.1. Contractor Approach: The Contractor shall keep all documents, data compilations, reports, computer programs, photographs, and any other work provided to or produced by the Contractor in the performance of the contract confidential until publicly released by the Department or until written permission is granted by the Department for its release.

20.2.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.3. Reference #3372: The Contractor shall obtain written approval from the Department prior to disclosing any privileged information, such as attorney/client information.

20.3.1. Contractor Approach: The Contractor shall obtain written approval from the Department prior to disclosing any privileged information, such as attorney/client information.

20.3.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.4. Reference #3373: The Contractor shall provide the ability to protect specific client and provider information from view or use to comply with Colorado's Address Confidentiality Program (ACP) as specified through the Communication Management Plan.

20.4.1. Contractor Approach: The Contractor shall use appropriate administrative, logical, and physical controls to protect specific client and provider information from view or use to comply with Colorado's ACP as specified through the Communication Management Plan.

20.4.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.5. Reference #3374: The Contractor shall provide secure and encrypted electronic communication functionality for authorized BIDM users to report problems or ask questions while exchanging PHI/PII, in compliance with HIPAA.

20.5.1. Contractor Approach: The Contractor shall provide secure and encrypted electronic communication functionality for authorized BIDM users to report problems or ask questions while exchanging PHI/PII, in compliance with HIPAA.

20.5.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.6. Reference #3375: The Contractor shall obtain written approval from the Department prior to release of Protected Health Information (PHI) or Personally Identifiable Information (PII) to any non-Department entity.

20.6.1. The Contractor shall verify with the Department that the requesting party is authorized to receive information.

20.6.2. Contractor Approach: The Contractor shall obtain the Department's written permission prior to disclosing any privileged information. Contractor shall also verify the requesting party is authorized to receive the designated information.

20.6.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.7. Reference #3376: The Contractor shall provide to its staff HIPAA compliance training specific to the BIDM.

20.7.1. This training shall be in compliance with federal and State rules and regulations.

20.7.2. Contractor Approach: Contractor shall provide every new Contractor employee certain data privacy, confidentiality, and security training as part of Contractor's new employee orientation program.

20.7.2.1. Contractor shall conduct annual re-certification privacy, confidentiality, and security awareness training and updates.

20.7.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.8. Reference #3377: The Contractor shall provide the ability for any authorized BIDM user, as defined by the Department, to have secure, role-based, single sign-on access to authorized current and historical data, BIDM components, or Web-based material.

20.8.1. The single sign-on also applies to the Core MMIS and to the PBMS. The Core MMIS Contractor will be the single sign-on lead. The BIDM Contractor shall work with the Core MMIS Contractor to ensure seamless access for authorized BIDM users.

20.8.2. Contractor Approach: The BIDM shall provide role-based access control functionality integration with the MMIS Contractor's Identity and Access Management solution (including SSO), along with the Contractor's solutions.

20.8.2.1. Using this toolset in conjunction with the downstream application and systems configuration, including the database level, such as Oracle Virtual Private Database or VPD, the Contractor shall define user profiles, roles, groups, and positional-levels, based on information from and as approved by the Department, to restrict access to the BIDM databases and applications based on a BIDM user's job function.

20.8.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.9. Reference #3378: The Contractor shall provide a scalable system infrastructure with role-based access capability to establish user credentials and permissions.

20.9.1. Contractor Approach: The Contractor shall provide a scalable system infrastructure with role-based access capability to establish user credentials and permissions, as described in the DSD or the Physical and Systems Security Plan.

20.9.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.10. Reference #3379: The Contractor shall provide a user administration module that allows authorized BIDM users, including authorized providers and system administrators, to assign access to BIDM functions in a secure manner in accordance with privacy and security requirements.

20.10.1. Contractor Approach: The Contractor's BIDM Solution environment uses commercial products to provide role-based access control functionality integration with the MMIS Contractor's Identity and Access Management solution (including SSO), along with Contractor's solutions, as described in the DSD or the Physical and Systems Security Plan.

20.10.1.1. Using this toolset in conjunction with the downstream application and systems configuration, including the database level, such as Oracle Virtual Private Database or VPD, the Contractor shall define user profiles, roles, groups, and positional-levels, based on information from and as approved by the Department, to restrict access to the BIDM databases and applications based on a BIDM user's job function.

20.10.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.11. Reference #3380: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to BIDM Data Exchange Partners associated with the Department's Legal Division data bases.

20.11.1. This exchange shall occur on a period as determined by the Department.

20.11.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to BIDM Data Exchange Partners associated with the Department's Legal Division data bases.

20.11.2.1. This exchange shall occur on a period as determined by the Department.

20.11.3. Requirement Stage: BIDM Implementation Contract Stage III

20.12. Reference #3381: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to BIDM Data Exchange Partners associated with the Department's Customer Service database.

20.12.1. This exchange shall occur on a period as determined by the Department.

20.12.2. Contractor Approach: The Contractor shall develop, document, and implement BIDM Data Exchanges to obtain BIDM Imports from and to send BIDM Exports to BIDM Data Exchange Partners associated with the Department's Customer Service database.

20.12.2.1. This exchange shall occur on a period as determined by the Department.

20.12.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.13. Reference #3382: THIS REQUIREMENT INTENTIONALLY DELETED

20.14. Reference #3383: The BIDM shall provide an audit trail that provides the date and reason for all modification for each authorized BIDM user's profile.

20.14.1. Contractor Approach: The BIDM shall provide an audit trail that provides the date and reason for all modification for each authorized BIDM user's profile.

20.14.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.15. Reference #3384 The Contractor shall provide user profiles that allows an authorized BIDM user to view role based assignments, group memberships, system usage, and last log-on date and time.

20.15.1. Contractor Approach: The Contractor shall provide defined user profiles that allows an authorized BIDM user to view role based assignments, group memberships, system usage, and last log-on date and time.

20.15.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.16. Reference #3385: The BIDM shall provide the ability to support both role-based and group-based security at the individual data field level so that users are not able to view sensitive information or other information which they have no business need to see.

20.16.1. This shall include suppressing the results returned from searches as well as information viewable in the user's own display environment.

20.16.2. Contractor Approach: Contractor shall manage role-based or user security profile access to the detailed database and data marts using views that provide an additional layer of protection and limit data access to those with a "need to know."

20.16.2.1. These security views shall provide the following additional access controls:

20.16.2.1.1. Column Security: Sensitive data elements may be protected through column security. BIDM users must have authorized access to these secured fields to create reports using this data.

20.16.2.1.2. Row Security: Row security limits a BIDM user to a specific set of rows.

20.16.2.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.17.   Reference #3386: The Contractor shall provide an easy-to-use module for the Contractor to edit, create, and implement role-based and group-based security at the individual data field level for all authorized BIDM users based upon user characteristics or group memberships.

20.17.1.   Contractor Approach: Contractor's authorized security staff shall set security at the field level should it be required. Contractor staff shall also be able to establish field-level security for selected fields at the Department's request.

20.17.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.18.   Reference #3387: The Contractor shall develop and maintain role-based, single sign-on authorized BIDM user lists and profiles in partnership with the Core MMIS contractor. The Contractor shall actively manage and maintain the lists and profiles per Department direction.

20.18.1.   Contractor Approach: The Contractor's BIDM Solution environment uses commercial products to provide role-based access control functionality integration with the MMIS Contractor's Identity and Access Management solution (including SSO), along with Contractor's solutions as described in the DSD or Physical and Systems Security Plan.

20.18.1.1.   Using this toolset in conjunction with the downstream application and systems configuration, including the database level, such as Oracle Virtual Private Database or VPD, the Contractor shall define user profiles, roles, groups, and positional-levels, based on information from and as approved by the Department, to restrict access to the BIDM databases and applications based on a BIDM user's job function.

20.18.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.19.   Reference #3388: THIS REQUIREMENT INTENTIONALLY DELETED.

20.20.   Reference #3389: The BIDM shall provide the ability for authorized BIDM users to track individual client's data released to external parties, such as external data requests, research studies and audits.

20.20.1.   Tracking information shall include time/date, source, type, and status of request. The BIDM is not required to track individual client data specifically so long as the parameters associated with the external data release are captured in the BIDM.

20.20.2.   Contractor Approach: The Contractor shall provide the capability to search data released to external parties, based on the associated parameters, so that the Department may determine if an individual client's data was contained in that data release.

20.20.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

20.21.   Reference #3390: THIS REQUIREMENT INTENTIONALLY DELETED.

20.22.   Reference #3391: THIS REQUIREMENT INTENTIONALLY DELETED

21. BIDM WEB PORTAL HOSTING

21.1.   Reference #3392: The Contractor shall provide a BIDM Web Portal functionality for authorized BIDM users, such as contracted Medicaid providers, to generate, access, and download role-based BIDM reports and analysis.

21.1.1.   The Contractor shall be responsible for all components of the BIDM Web Portal including, but not limited to, all of the following:

21.1.1.1.   BIDM Web Portal application interface

21.1.1.2.   Hosting, hardware, and software

21.1.1.3.   Internet connectivity

21.1.1.4.   BIDM Web Portal user guide and standardized reporting and analytics documentation

21.1.1.5.   Associated operational services, such as the Help Desk and authorized BIDM user training.

21.1.2.   Contractor Approach: The Contractor shall design, host, and maintain the Solution Center, a configurable COTS browser-based Web Portal, which will be the landing page of the BIDM Web Portal. Contractor shall be responsible for providing all hardware and software necessary to host and provision the portal for access over the internet. Using the Solution Center, providers and other authorized users shall be able to access the BIDM applications that support their analytic needs.

21.1.2.1.   Each application, such as the Physician Performance Assessment (PPA), Cognos, and Advantage Suite, shall have a landing page for navigating to the features and functions of the application. Each application available from the Solution Center shall have online documentation, including a user guide. As authorized, users shall be able to access and generate reports through the provided applications and have the option to download results. The Solution Center portal shall also provide access to a library of training content, scheduled sessions, and a link to operational services such as Help Desk.

21.1.3.   Requirement Stage: BIDM Implementation Contract Stage III

21.2.   Reference #3393: The Contractor shall create and maintain role-based authentication for authorized BIDM user access to the BIDM Web Portal through a formalized request process, subject to Department approval.

21.2.1.   Contractor Approach: The Contractor shall define and establish security prior to releasing the initial production system. Once the system is in production, the Contractor shall review user access controls on a quarterly basis to ensure all users, including the Department's internal users, Contractor's designated users, and Colorado providers, have the most current and appropriate access to the data.

21.2.1.1.   As new users are identified, Contractor shall work with the Department to establish the role and applications to which each user needs access. Assignment of new users to roles and applications shall be managed by authorized system users only, and Contractor shall follow the new user request process, as agreed upon by the Department and Contractor through the Physical and System Security Plan. As new roles are identified, Contractor shall use the Change Management Process to create and implement the new role and establish appropriate security.

21.2.2.   Requirement Stage: BIDM Implementation Contract Stage III

21.3.   Reference #3394: The Contractor shall provide role-based access and authentication in the BIDM Web Portal.

21.3.1.   Access to PHI shall be limited to the minimum necessary by each authorized BIDM user's role. For example, providers shall only have access to reports on clients enrolled with them or otherwise assigned to them through Client Attribution.

21.3.2.   Contractor Approach: The Contractor shall provide role-based access and authentication in the BIDM Web Portal. The Contractor shall work closely with the Department to implement security profiles and methods needed to safeguard the BIDM Web Portal.

21.3.2.1.   The Contractor shall ensure that the BIDM Web Portal provides for role-based security that restricts access to PHI to only those users who need this data.

21.3.3.   Requirement Stage: BIDM Implementation Contract Stage III

21.4.   Reference #3395: The Contractor shall ensure the BIDM Web Portal is available to authorized BIDM users 24 hours a day, 7 days a week, except for regularly scheduled maintenance.

21.4.1.   Contractor Approach: The Contractor shall make the BIDM Web Portal available to authorized users 24 hours a day, 7 days a week, except for scheduled maintenance, as defined in the System Operations and Maintenance Plan.

21.4.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

21.5.   Reference #3396:   The Contractor shall provide authorized BIDM users an online interface capability for creating provider user-level accounts for the BIDM Web Portal.

21.5.1.   Contractor Approach: The Contractor shall provide an online interface that allows authorized BIDM users to request that the Contractor establish a user account for a new provider, which would allow the provider to have role-based access and authentication in the BIDM Web Portal. The Contractor shall implement security profiles and methods needed to safeguard the BIDM Web Portal, as approved by the Department. As new users are identified, the Contractor shall work with the Department to establish the role and applications to which each user needs access. The Contractor shall follow the new user request process, as agreed upon by the Department and the Contractor through the Physical and System Security Plan.

21.5.2.   Requirement Stage: BIDM Implementation Contract Stage III

21.6.   Reference #3397: The Contractor shall provide an interface to the MMIS Web Portal to provide role-based access for authorized BIDM users access the BIDM Web Portal to generate, view, and download ad hoc and standardized reporting.

21.6.1.   This shall include, but is not limited to, all of the following:

21.6.1.1.   The ability to export a provider's entire client list.

21.6.1.2.   The ability to export, in real-time, a provider's entire list of attributed clients, as described in the DSD.

21.6.1.3.   At the time of service, real-time access to current client health plan benefits, including formulary and services requiring prior authorization, as described in the DSD.

21.6.1.4.   Provision of a client health profile, which includes previous claims/encounters data and related information available through the data warehouse.

21.6.1.5.   Provision of data analytics, which include, but are not limited to, client risk scores, population risk scores, chronic illness levels, care management plans, etc.

21.6.1.6.   Provide prompt-based versions of the reports that authorized BIDM users may run on demand for any specified timeframe.

21.6.2.   The Core MMIS contractor will create a MMIS Web Portal, and the Contractor shall ensure the BIDM Web Portal has single sign-on capability with the MMIS Web Portal created by the Core MMIS contractor.

21.6.3.   Contractor Approach: The Contractor shall provide integration with the MMIS Contractor's Identity and Access Management solution (including SSO) to provide an interface through the BIDM Web Portal that allows role-based access to reporting, as follows:

21.6.3.1.　　　After accessing the BIDM Web Portal, users shall have options for where to go next for the information they are authorized to see. Assuming they have the proper authorization, providers shall be able to access in real-time reports such as their client lists and current client benefit-plan information; they can then export or download the reports for reference offline. Providers shall be able to drill down to detailed information about their patients.

21.6.4.　　The physician engagement components also shall deliver a patient action list showing gaps in care as defined using evidence-based national quality standards.

21.6.5.　　Authorized RCCO and Department users shall have role-based access to the physician engagement solution. They shall have direct access to analytics, but only to the data they are authorized to see. Authorized users shall be able to choose to perform ad hoc analysis or utilize standard reports with minor changes. Other authorized users that need information that is more current shall be able to view current benefit information, including any prior authorization services, for information on improving the quality of patient care.

21.6.6.　　All users with proper authority, including physicians, shall be able to see the Patient Health Record (PHR, or client health profile). The PHR shall contain the patient's utilization by type of care, such as inpatient, outpatient or prescription drug, along with extensive information on clinical conditions, such as chronic illness, expected medical cost projections (risk band), gaps in care, and detailed claims history. After viewing the patient summary in PHR, users shall be able to turn to tabs with more detailed data to better understand the patient's clinical conditions and severity; for any episode of interest, users shall be able to drill down to the corresponding medical or drug claims.

21.6.7.　　Requirement Stage: BIDM Implementation Contract Stage III

21.7.　　Reference #3398: The Contractor shall coordinate with the Core MMIS contractor and other contractors as necessary to provide SSO access to the BIDM Web Portal and the reports and applications available to the authorized BIDM users within the BIDM Web Portal.

21.7.1.　　Contractor Approach: The Contractor shall provide the ability for authorized users to launch the BIDM Web Portal from the MMIS Web Portal, or log in directly from a new browser window with internet connectivity. The Contractor shall coordinate with the Core MMIS Contractor and other contractors as necessary to ensure authorized users have SSO authentication from the MMIS Web Portal to the BIDM Web Portal.

21.7.2.　　Requirement Stage: BIDM Implementation Contract Stage III

21.8.　　Reference #3399: The Contractor shall coordinate with the Core MMIS contractor and other contractors as necessary to provide SSO access to the Core MMIS contractor's MMIS Web Portal as authorized BIDM users choose to return to MMIS Web Portal from the BIDM Web Portal.

21.8.1.　　Contractor Approach: The Contractor shall provide the ability for authorized users to launch the BIDM Web Portal from the MMIS Web Portal, or log in directly from a new browser window with internet connectivity. The Contractor shall coordinate with the Core MMIS and Support Services Contractor and other contractors as necessary to ensure authorized users have SSO authentication from the MMIS Web Portal to the BIDM Web Portal. Once in the BIDM Web Portal, users shall be able to return to the MMIS Web Portal using an application icon located on the BIDM Web Portal's main page.

21.8.2.　　Requirement Stage: BIDM Implementation Contract Stage III

21.9.   Reference #3400: The Contractor shall coordinate with the Core MMIS contractor and other contractors as necessary to allow authorized BIDM users to access the Core MMIS contractor's MMIS Web Portal and the BIDM Web Portal at the same time, but through two different windows in the same web browser.

21.9.1.   Contractor Approach: The Contractor shall provide the ability for authorized users to launch the BIDM Web Portal from the MMIS Web Portal, or log in directly from a new browser window with internet connectivity. The Contractor shall coordinate with the Core MMIS Contractor and other contractors as necessary to ensure authorized users have SSO authentication from the MMIS Web Portal to the BIDM Web Portal. Once in the BIDM Web Portal, users shall be able to return to the MMIS Web Portal using an application icon located on the BIDM Web Portal's main page. Further, should they desire, users shall be able to access the Core MMIS Contractor's Web Portal (MMIS Web Portal) and the BIDM Web Portal at the same time using two different windows or tabs in the same web browser.

21.9.2.   Requirement Stage: BIDM Implementation Contract Stage III

21.10.   Reference #3401: The Contractor shall ensure that the BIDM Web Portal is compatible with Internet Explorer, Safari, Google Chrome, and Firefox web browsers.

21.10.1.   The Contractor shall support the current version and two prior versions where possible.

21.10.2.   The Department may add support of additional browsers through the Change Management Process.

21.10.3.   Contractor Approach: The Contractor shall make the BIDM Web Portal accessible using industry standard internet browsers, such as Internet Explorer, Safari, Google Chrome, and Firefox. During the project's Implementation Phase, the Contractor shall provide the currently supported versions of each browser that authorized users can use to access the portal and subsequent applications. The Contractor shall complete all configuration changes to the BIDM Web Portal using the established and agreed-upon Change Management Process.

21.10.4.   Requirement Stage: BIDM Implementation Contract Stage III

21.11.   Reference #3402: The Contractor shall provide the ability for a robust search function of the information contained in the BIDM Web Portal.

21.11.1.   Contractor Approach: The Contractor shall ensure that each of the BIDM Web Portal components, such as PPA, Advantage Suite, Cognos, and SAS, have the capability to allow users to perform a search with smart query functions to retrieve specific data.

21.11.2.   Requirement Stage: BIDM Implementation Contract Stage III

21.12.   Reference #3403: The Contractor shall provide the ability to track and maintain changes to the Contractor-maintained BIDM Web Portal.

21.12.1.   Contractor Approach: The Contractor shall complete all configuration changes to the BIDM Web Portal using the established and agreed-upon Change Management Process, which ensures all changes are controlled, follow processes for approvals, and are traceable from request through to completion.

21.12.2.   Requirement Stage: BIDM Implementation Contract Stage III

21.13.   Reference #3404: The Contractor shall provide the ability for authorized BIDM users to access and utilize BIDM Web Portal securely on their smart phones, tablets, and mobile operating systems.

21.13.1. Contractor Approach: The Contractor shall design the BIDM Web Portal to support mobile users, so as to allow authorized BIDM users to access and utilize BIDM applications securely on their smart phones, tablets, and mobile operating systems. The BIDM Web Portal shall be accessible from any internet-connected mobile device. Users shall be able to sign in, create new content and get results "on the go." The Contractor shall ensure that access via mobile devices is encrypted using HIPAA-approved 128-bit encryption.

21.13.2. Requirement Stage: BIDM Implementation Contract Stage III

22. DISASTER RECOVERY AND BUSINESS CONTINUITY

22.1. Reference #3405: The Contractor shall provide results of Business Continuity and Disaster Recovery Plan testing. The Contractor shall allow Department Staff and its designees to participate in testing, if requested.

22.1.1. Contractor Approach: Upon request, the Contractor shall provide results of Business Continuity and Disaster Recovery Plan testing. Upon request, and with notice as described in the Communication Management Plan, the Department staff and its designees shall be allowed to participate in select exercises.

22.1.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23. DATA GOVERNANCE

23.1. Reference #3406: The Contractor shall develop, implement, and maintain a Data Governance Plan.

23.1.1. The Contractor shall collaborate with the Department in the development, implementation and maintenance of the Data Governance Plan.

23.1.2. Contractor Approach: The Contractor shall develop, implement, and maintain a Data Governance Plan.

23.1.2.1. The Contractor shall collaborate with the Department in the development, implementation and maintenance of the Data Governance Plan.

23.1.3. Requirement Stage: BIDM Implementation Contract Stage II

23.2. Reference #3407: The BIDM shall maintain all BIDM generated reports.

23.2.1. The BIDM shall provide immediate access to the BIDM generated reports for a minimum of six (6) years. The Contractor shall archive all BIDM generated reports once immediate access is no longer available.

23.2.2. This requirement shall not apply to authorized BIDM user generated reports.

23.2.3. Contractor Approach: BIDM generated reports shall be accessible for six (6) years and shall be archived after that. These reports shall be available through the various BI tools like Cognos and SAS. The Contractor may archive the reports in the document management system, making the information readily available.

23.2.3.1. This requirement shall not apply to authorized BIDM user generated reports

23.2.4. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23.3. Reference #3408: The Contractor shall enforce data integrity with original sources to ensure the BIDM serves as the official record for all reporting.

23.3.1. Contractor Approach: The Contractor shall enforce data integrity with original sources to ensure the BIDM serves as the official record for all reporting. The Contractor shall ensure the data in

the data warehouse balances with the source system. The Contractor shall build the ETL processes needed to migrate the data from the source systems into the appropriate BIDM target data structures.

23.3.1.1. Once the information has landed in the BIDM, the Contractor shall conduct further tests and checks to ensure the integrity of the data in this new analytic application. Data quality issues discovered during the ETL process shall serve as a feedback loop with the source systems, with a goal of always working to improve data quality at the source

23.3.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23.4. Reference #3409: The Contractor shall provide the ability for authorized BIDM users to directly access and analyze all data, including raw data, in the BIDM according to role based access.

23.4.1. The Contractor shall make this functionality available in both the production environment and the Sandbox environment.

23.4.2. Contractor Approach: The Contractor shall establish a role-based access model that allows authorized system users to access directly the data in all environments, such as the production, non-production, and Sandbox. During the design process, the Contractor shall ensure the appropriate security roles are defined and users are associated with the appropriate roles, based on information from and as approved by the Department. The level of access permissions shall be defined for each role/entity relationship, ensuring the principles of "need to know" and "least privileged" are enforced.

23.4.2.1. The Contractor shall build these access and authorization rules into the various architectures of the BI solution, so that access will be controlled at the BI, ETL, and database layers. The Contractor shall not be responsible for the actions of users associated with Sandbox activities.

23.4.3. Requirement Stage: BIDM Implementation Contract Stage II

23.5. Reference #3410: The Contractor shall maintain records, as specified by the Department, involving matters in litigation, for the period of time as specified by the Department.

23.5.1. The Contractor shall maintain all such records in accordance with the System Operational Procedures Manual.

23.5.2. Contractor Approach: The Contractor shall maintain data and make it accessible for the term of the Contract. The Contractor shall identify those entities and documents that could be subject to litigation early in the project lifecycle, based on information from and as approved by the Department. The Contractor shall design appropriate ways to flag and preserve those entities and documents that are part of a legal action to help ensure this information is protected and available when the Department needs it and it remains in compliance with legal regulations. The Contractor shall document the retention methodology, timing, and plan in the Ongoing Support Maintenance Plan.

23.5.2.1. The Contractor shall maintain all such records in accordance with the System Operational Procedures Manual.

23.5.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23.6. Reference #3411: The Contractor shall maintain all BIDM data to support reporting and analysis.

23.6.1. The Contractor shall provide a data storage and management approach that allows a "never delete a record" approach for ease and timeliness in accessing historical records.

23.6.2. All data within the past ten (10) years shall be optimized for instantaneous retrieval. Data older than ten (10) years shall be accessible without a special request.

23.6.3. Contractor Approach: The Contractor shall maintain all BIDM data to support reporting and analysis. The Department shall be able to easily access data regardless of its age. All data shall be kept on one platform to minimize the amount of knowledge that users need to have regarding the platform.

23.6.4. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23.7. Reference #3412: The Contractor shall provide the ability to generate a summary of historical file extracts and exchanges.

23.7.1. Contractor Approach: The Contractor shall provide the ability to generate a summary of historical file extracts and exchanges.

23.7.2. Requirement Stage: BIDM Implementation Contract Stage II

23.8. Reference #3413: Data retention and accessibility for Protected Health Information shall comply with HIPAA Privacy Standards and the System Operational Procedures Manual.

23.8.1. Contractor Approach: The Contractor shall comply with HIPAA Privacy Standards and the System Operational Procedures Manual for data retention and accessibility for Protected Health Information.

23.8.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23.9. Reference #3414: When converting claim history from incumbent contractor, the Contractor shall ensure all existing TCNs are associated with the original claim.

23.9.1. Contractor Approach: Contractor shall convert claim history from the incumbent contractor and the Contractor shall ensure all existing TCNs are associated with the original claim. The Contractor shall also be able to link newer TCNs to the original claim using a combination of Master Data Management (to establish "golden records" for clients, providers, facilities, and locations) and ETL processes with defined business rules that show how to link a TCN to a claim. This assumes that there are alternate business keys available on the record that will allow the linkage to be established.

23.9.2. Requirement Stage: BIDM Implementation Contract Stage III

23.10. Reference #3415: The Contractor shall maintain a current and historical cross-walk between NDC and HCPCS/CPT, and other codes sets as identified by the Department and in accordance with the System Operational Procedures Manual.

23.10.1. Contractor Approach: The Contractor shall collaborate with the Department to develop and maintain a current and historical cross-walk between NDC and HCPCS/CPT, and other codes sets as identified by the Department and in accordance with the System Operational Procedures Manual. The Contractor shall collaborate with the Department to develop and maintain current and historical cross-walk tables between the various code sets maintained within the BIDM.

23.10.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23.11. Reference #3416: Contractor shall ensure that data maintained by the BIDM are properly retained, archived, and protected from destruction, in accordance with the System Operational Procedures Manual.

23.11.1. Contractor Approach: Contractor shall ensure that data maintained by the BIDM are properly retained, archived, and protected from destruction, in accordance with the System Operational Procedures Manual.

23.11.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23.12. Reference #3417: The Contractor shall retain and archive electronic media in accordance with the System Operational Procedures Manual.

23.12.1. Contractor Approach: The Contractor shall retain and archive electronic media in accordance with the System Operational Procedures Manual. The Contractor shall define data and document archive and retention requirements in the System Operational Procedures Manual. For all documents and electronic information, the Contractor shall develop and implement the processes and technology needed to maintain a record of the project activities.

23.12.1.1. The Contractor shall maintain electronic copies of project documentation in a document management and versioning platform that will act as the repository for all project-related documentation. This document management system shall also provide a means for searching the documentation in a user-friendly platform. The Ongoing Procedures Plan shall contain the associated processes and procedures.

23.12.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23.13. Reference #3418: The Contractor shall provide ability to mask sensitive data per Department instructions for any data exports or reporting.

23.13.1. Contractor Approach: The Contractor shall provide ability to mask sensitive data per Department instructions for any data exports or reporting.

23.13.2. Requirement Stage: BIDM Implementation Contract Stage II

23.14. Reference #3419: The Contractor shall research and provide recommendations on potentially sensitive data elements to mask for external reporting, such as substance abuse related claims data and the identification of Safe Harbor Clients.

23.14.1. Contractor Approach: The Contractor shall research and provide recommendations on potentially sensitive data elements to mask for external reporting, such as substance abuse related claims data and the identification of Safe Harbor Clients.

23.14.2. Requirement Stage: BIDM Implementation Contract Stage II

23.15. Reference #3420: The Contractor shall maintain all current and historical functional and behavioral status scores for each client, including but not limited to the SF-12, ULTC 100.2 and addendums for special populations, and Support Intensity Scale.

23.15.1. Contractor Approach: The Contractor's plan for the BIDM Interfaces and BIDM Data Exchanges shall include integrating client assessment data into the data warehouse from any Colorado state agencies that may generate it.

23.15.1.1. This shall include the following data types:

23.15.1.1.1. Physical and mental health status of the chronically ill, whether captured via the 12-Item Short Form Health Survey (SF-12®) or the longer SF-36® form, as well as the Physical and Mental Health Composite Scores (PCS & MCS) calculated from the forms.

23.15.1.1.2. Behavioral health status, as captured on the Colorado Client Assessment Record (CCAR).

23.15.1.1.3.   Initial screening and intake information captured on the Colorado ULTC-100.2 form, when clients are being considered for long-term services and supports.

23.15.1.1.4.   Intellectual disability support levels, as captured in the Supports Intensity Scale (SIS)®, published by the American Association of Intellectual and Developmental Disabilities (AAIDD).

23.15.1.1.5.   Any other data types included through the Change Management Process.

23.15.1.2.   These data shall be stored in tables and made available to BIDM users to conduct analysis. During DDI, Contractor staff shall obtain information from Department staff necessary to understand the available feeds from the data source and capture analytically useful data elements in warehouse tables. Assuming the presence of linkable fields, such as a master person index, the Department's analysts shall be able to join the client assessment data with other data of interest, such as claims, encounters, or EHR data, to analyze healthcare utilization by functional levels and perform other analysis that is not possible by examining data in isolation.

23.15.2.   Requirement Stage: BIDM Implementation Contract Stage II

23.16.   Reference #3421: The BIDM shall maintain all CMS drug rebate files and associated dates provided from the PBMS and Core MMIS within the BIDM to capture drug rebate history.

23.16.1.   Contractor Approach: The Contractor shall maintain all CMS drug rebate files and associated dates provided from the PBMS and Core MMIS within the BIDM to capture drug rebate history. The Contractor shall define, retain, and maintain the data that is important to tracking drug rebate information, provided from the PBMS and MMIS applications.

23.16.2.   Requirement Stage: BIDM Implementation Contract Stage II

23.17.   Reference #3422: The BIDM shall maintain current, date specific, effective date, and historical date-sensitive National Drug Code information, such as pricing and rebate.

23.17.1.   Contractor Approach: The BIDM shall maintain current, date specific, effective date, and historical date-sensitive National Drug Code information, such as pricing and rebate.

23.17.2.   Requirement Stage: BIDM Implementation Contract Stage II

23.18.   Reference #3423: The BIDM shall provide the ability for authorized BIDM users to identify and exclude records from queries and reports, such as claims/encounters, client and Vital Statistics, based on confidentiality concerns or other reasons.

23.18.1.   This shall include, but is not limited to, the ability to exclude records from queries and reports when those records are associated with clients who have specifically requested that the Department not include their data in research data sets and when those records are related to clients in the ACP.

23.18.2.   Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to identify and exclude records from queries and reports. This shall include, but is not limited to, the ability to exclude records from queries and reports when those records are associated with clients who have specifically requested that the Department not include their data in research data sets and when those records are related to clients in the ACP.

23.18.3.   Requirement Stage: BIDM Implementation Contract Stage III

23.19.   Reference #3424: The Contractor shall provide ability to accommodate data changes and/or additions for Department identified data.

23.19.1.	Contractor Approach: The Contractor shall provide ability to accommodate data changes and/or additions for Department identified data.

23.19.2.	Requirement Stage: BIDM Implementation Contract Stage III

23.20.	Reference #3425: The BIDM shall provide on-line retrieval and access to documents and files for an adjustable time parameter, as defined through the System Operational Procedures Manual.

23.20.1.	The Contractor shall maintain all data for the term of the Contract.

23.20.2.	Contractor Approach: The Contractor shall provide on-line retrieval and access to documents and files for an adjustable time parameter, as defined through the System Operational Procedures Manual.

23.20.3.	Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

23.21.	Reference #3426: The BIDM shall provide the ability to capture and maintain both current and historical versions of all assessment data, such as, SF-12, CCAR and ULTC100.2 data. The BIDM shall provide the ability to query, analyze, and report on the data.

23.21.1.	Contractor Approach: Contractor shall provide the ability to capture, maintain, query, analyze and report on both current and historical versions of all assessment data, such as SF-12, CCAR, and ULTC100.2 data.

23.21.2.	Requirement Stage: BIDM Implementation Contract Stage II

23.22.	Reference #3427: The BIDM shall provide the ability to establish and maintain links of providers to other entities and individuals, such as, provider groups, managed care entities, provider chains, networks, owners, partners, managing employees and clients, as well as between providers and other providers, practices, and billing organizations.

23.22.1.	Contractor Approach: Contractor shall provide the ability, through associated claims and clinical records, to establish and maintain links of providers to other entities and individuals such as provider groups, managed care entities, provider chains, networks, owners, partners, managing employees and clients as well as between providers and other providers, practices and billing organizations.

23.22.2.	Requirement Stage: BIDM Implementation Contract Stage III

24. DATA MANAGEMENT

24.1.	Reference #3428: Contractor shall maintain data standards related to the data in the BIDM.

24.1.1.	These data standards shall include all of the following:

24.1.1.1.	Data Confidentiality – Prevent disclosure to unauthorized persons or systems.

24.1.1.2.	Data Integrity – data cannot be modified undetectably.

24.1.1.3.	Data Availability – access is not inappropriately blocked or denied.

24.1.1.4.	Data Authenticity – validation of transactions.

24.1.1.5.	Data Security – encryption and Department approved security protocols and processes.

24.1.1.6.	Non-repudiation of Data – parties to a transaction cannot deny their participation in the transaction.

24.1.1.7.	All encrypted data in motion and at rest.

24.1.2.	Contractor Approach: The Contractor shall implement data standards that ensure the quality, security, and integrity of the data.

24.1.2.1.	These standards shall include the following:

24.1.2.1.1.	Data Confidentiality – To prevent disclosure to unauthorized persons or systems

24.1.2.1.2.	Data Integrity – So that data cannot be modified undetectably.

24.1.2.1.3.	Data Availability – So that access is not inappropriately blocked or denied.

24.1.2.1.4.	Data Authenticity – For validation of transactions.

24.1.2.1.5.	Data Security – Encryption and Department approved security protocols and processes

24.1.2.1.6.	Non-repudiation of Data – So that parties to a transaction cannot deny their participation in the transaction.

24.1.2.1.7.	Encryption of data in motion and at rest – The Contractor shall encrypt all data at rest and in motion.

24.1.3.	Requirement Stage: BIDM Implementation Contract Stage II

24.2.	Reference #3429: The Contractor shall ensure secure and reliable data exchange across the Department's enterprise and with external systems to maximize data integrity.

24.2.1.	This shall include, but is not limited to, all of the following:

24.2.1.1.	A unified data exchange solution to ensure successful data exchange.

24.2.1.2.	Monitors and alerts appropriate parties of potential issues.

24.2.1.3.	A data model that is consistent with the Department's business processes.

24.2.2.	Contractor Approach: The Contractor shall ensure secure and reliable data exchange across the Department's enterprise in the following manner:

24.2.2.1.	This shall include, but is not limited to, all of the following:

24.2.2.1.1.	A unified data exchange solution to ensure successful data exchange.

24.2.2.1.2.	Monitors and alerts appropriate parties of potential issues.

24.2.2.1.3.	A data model that is consistent with the Department's business processes.

24.2.3.	Requirement Stage: BIDM Implementation Contract Stage III

24.3.	Reference #3430: The BIDM shall provide the ability to transfer all data, documentation and archives to another vendor during transition of the Contract and BIDM that facilitates fast and accurate information retrieval by the other vendor and Department.

24.3.1.	Contractor Approach: The BIDM shall provide the ability to transfer all data, documentation and archives to another vendor during transition of the Contract and BIDM that facilitates fast and accurate information retrieval by the other vendor and Department. The Contractor shall transfer all data, documentation, and archives to the new vendor during the transition of this Contract in an agreed upon manner that facilitates speed and accuracy, as specified in the System Turnover Plan.

24.3.2.	Requirement Stage: BIDM Transition Contract Stage

24.4. Reference #3431: The Contractor shall provide an online, viewable, indexed, and content-searchable archive with version control for all BIDM forms, documents, data files, data, and manuals to identify archived information to expedite the retrieval of archived information.

24.4.1. Using the developed index, Contractor shall be able to retrieve ninety-five percent (95%) of the information within seven (7) Business Days following the request by an authorized BIDM user.

24.4.2. Contractor Approach: The Contractor shall provide an online, viewable, indexed, and content-searchable archive with version control for all BIDM forms, documents, data files, data, and manuals to identify archived information to expedite the retrieval of archived information. All documentation, forms, manuals, and similar documents shall be stored in a version-controlled, searchable document management system.

24.4.3. Requirement Stage: BIDM Implementation Contract Stage II

24.5. Reference #3432: The Contractor shall organize the data within the BIDM into a logical, flexible configuration in which individual elements and tables can be linked to each other across conformed dimensions for multiple business uses. The configuration shall be documented and updated upon any change and the documentation will be made available to authorized BIDM users and the Department in a downloadable, indexed, and searchable format.

24.5.1. Contractor Approach: The Contractor shall model the Operational Data Store (ODS) based on the source system and the BIDM data warehouse in third normal form, following the Data Warehouse 2.0 architecture laid out by Bill Inmon. The Contractor shall model the data marts using the dimensional modeling techniques that leverage conformed dimensions. The Contractor shall create and maintain all models and produce HTML and PDF versions of the models for the user community.

24.5.2. Requirement Stage: BIDM Implementation Contract Stage III

24.6. Reference #3433: The Contractor shall ensure that all codes and abbreviations used in the BIDM have corresponding and easy-to-view narrative descriptions.

24.6.1. Contractor Approach: Contractor shall ensure that all reference data contained in the Colorado BIDM Solution will include descriptions as well as codes and abbreviations. The Contractor shall work with the Department to build appropriate descriptions for codes from the source systems whenever possible.

24.6.2. Requirement Stage: BIDM Implementation Contract Stage III

24.7. Reference #3434: The Contractor shall fully document all tables, fields, calculated fields, interfaces and other BIDM components.

24.7.1. Contractor Approach: The Contractor shall appropriately define and document all tables, fields, calculated fields, interfaces and other BIDM components in the BIDM. This documentation may occur wherever it is most appropriate in the BIDM. These definitions shall be available for review by the Department.

24.7.2. Requirement Stage: BIDM Implementation Contract Stage III

24.8. Reference #3435: The Contractor shall fully document all reports it develops as part of this Contract including data sources, assumptions, calculations, and other pertinent information that would be necessary for an advanced-user to re-create the report.

24.8.1.   Contractor Approach: Contractor shall fully document reports both in the detailed design documentation created for the report as well as in the metadata associated with the specific BI tool being used.

24.8.2.   Requirement Stage: BIDM Implementation Contract Stage III

24.9.   Reference #3436: The Contractor shall ensure that all codes, abbreviations, and associated descriptions in the BIDM are provided in a downloadable, indexed, and searchable format.

24.9.1.   Contractor Approach: The Contractor shall index all reference data, including code tables, brought into the BIDM data warehouse. The Contractor shall also provide an additional facility to allow users to download and use that information independent of the BIDM.

24.9.2.   Requirement Stage: BIDM Implementation Contract Stage III

24.10.   Reference #3437: The Contractor shall provide accurate version tracking and present authorized BIDM users with the latest revision of any BIDM document, such as, data documentation, reference material and reporting documentation, with the option to view previous versions.

24.10.1.   Contractor Approach: Contractor shall provide all project documentation versions within a document management system. Authorized users with appropriate permissions shall be able to access the most recent copy along with previous versions.

24.10.2.   Requirement Stage: BIDM Implementation Contract Stage I

24.11.   Reference #3438: The Contractor shall provide the ability for authorized BIDM users to upload data, perform automated data validation processing, and manually edit data based on validation findings.

24.11.1.   The Contractor shall make this functionality available in the Sandbox.

24.11.2.   Contractor Approach: The Contractor shall allocate usable space in the Sandbox environment to each authorized system user so that he or she can use to manipulate data in any manner deemed fit, as described in the System Operations and Maintenance Plan.

24.11.3.   Requirement Stage: BIDM Implementation Contract Stage I

24.12.   Reference #3439: The Contractor shall provide consistent field names and employ consistent naming convention across tables and data sources.

24.12.1.   Contractor Approach: The Contractor shall provide consistent field names and employ consistent naming convention across tables and data sources. The Contractor shall establish data standards, such as naming conventions, based on information from and as approved by the Department. The Contractor shall not be responsible for making final determinations related to naming conventions.

24.12.2.   Requirement Stage: BIDM Implementation Contract Stage III

24.13.   Reference #3440: The Contractor shall provide the ability, through role-based security, for authorized BIDM users to directly enter data into the BIDM.

24.13.1.   Contractor Approach: The Contractor shall establish role-based security access to the data at all layers of the BI stack to ensure the integrity of the data. The Contractor shall design reference tables, based on information from the Department, that shall be populated from BIDM Data Exchanges as defined in the DSD.

24.13.2.   Requirement Stage: BIDM Implementation Contract Stage II

24.14. Reference #3441: The Contractor shall ensure that any reporting functionality within the BIDM supports the ability to pull and use the narrative descriptions of codes and abbreviations in addition to the codes and abbreviations themselves.

24.14.1. Contractor Approach: The Contractor shall establish code tables that contain narrative descriptions as well as codes and abbreviations. Users shall be able to link to these tables to use the descriptions in reports instead of the codes as they deem necessary.

24.14.2. Requirement Stage: BIDM Implementation Contract Stage III

24.15. Reference #3442: The BIDM shall provide functionality for authorized BIDM users to manage, track, mark or flag records, record actions, and document the complete process within the BIDM.

24.15.1. Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to manage, track, mark or flag records, record actions, and document the complete process within the BIDM. Users shall be able to accomplish these tasks within their own schemas in the Sandbox, where they will be able to mark or flag records that have special significance. The Contractor shall migrate tables to other BIDM environments, as detailed in the DSD or the Change Management Process.

24.15.2. Requirement Stage: BIDM Implementation Contract Stage III

24.16. Reference #3443: The Contractor shall provide the ability to store and retrieve current and historical information for provider and client data elements that change.

24.16.1. Contractor Approach: The Contractor shall establish Type 1, 2, and 3 Slowly Changing Dimensions (SCD's), as approved by the Department. These dimensions shall facilitate the current and historical data analytics the Department performs.

24.16.2. Requirement Stage: BIDM Implementation Contract Stage III

24.17. Reference #3444: The Contractor shall provide the ability to allow for authorized BIDM users to add/update code descriptions generated within the BIDM without the need for Customization or Configuration.

24.17.1. Contractor Approach: The Contractor shall provide the ability to allow for authorized BIDM users to add and update code descriptions as agreed to in the System Operations and Maintenance Plan.

24.17.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

25. INTEGRATION OF EXTERNAL DATA

25.1. Reference #3445: The Contractor shall develop and maintain Interface Control Documents (ICDs) that describe BIDM Interfaces and BIDM Data Exchanges including any rules for communicating with BIDM Interface Partners and BIDM Exchange Partners.

25.1.1. All ICDs shall clearly communicate all possible inputs and outputs from a system for all potential actions.

25.1.2. All ICDs shall conform to guidelines in DHHS' Interface Control Practice Guide and CMS' Interface Control Document unless other guidelines and formats are agreed to by the Department in writing.

25.1.3. Contractor Approach: The Contractor shall develop and maintain ICDs that describe BIDM Interfaces and BIDM Data Exchanges including any rules for communicating with BIDM Interface Partners and BIDM Exchange Partners.

25.1.3.1.   All ICDs shall clearly communicate all possible inputs and outputs from a system for all potential actions. The ICDs shall identify the rules required for developing and maintaining the interface or exchange with each data supplier.

25.1.4.   Requirement Stage: All Contract Stages

25.2.   Reference #3446: The Contractor shall work with the Department and BIDM Exchange Partners to establish mechanisms and methodologies for each BIDM Data Exchange.

25.2.1.   The Contractor shall include the mechanisms and methodologies in the appropriate ICDs.

25.2.2.   Contractor Approach: The Contractor shall work with the Department and BIDM Exchange Partners to establish mechanisms and methodologies for each BIDM Data Exchange. The Contractor shall include the mechanisms and methodologies in the appropriate ICDs.

25.2.3.   Requirement Stage: All Contract Stages

25.3.   Reference #3447: The Contractor shall work with the Department and BIDM Exchange Partners to update mechanisms and methodologies included in all ICDs as needed.

25.3.1.   Contractor Approach: The Contractor shall update mechanisms and methodologies included in all ICDs as needed, based on information from and as approved by the Department.

25.3.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

25.4.   Reference #3448: The Contractor shall provide the ability to associate Medicare claims/encounter data received through a BIDM Data Exchange with other BIDM data for querying and reporting.

25.4.1.   Contractor Approach: The Contractor shall provide the ability to associate Medicare claims/encounter data received through the COBA BIDM Data Exchange with other BIDM data for querying and reporting.

25.4.2.   During the requirements and design phases Contractor shall collaborate with the Department to identify the important business relationships within the BIDM data. Conformed dimensions to which Medicare claims and encounter data can be tied shall be identified and documented so long as there are business identifiers available that can be used in these files to link this data with other information in the BIDM data warehouse.

25.4.3.   Requirement Stage: BIDM Implementation Contract Stage III

26. DATA WAREHOUSE

26.1.   Reference #3449: The BIDM shall provide multi-dimensional data functionality, such as, data cubes, customized tables and data marts, to develop, implement and maintain both derived and aggregated data, such as, total claim costs, unique client counts and units of service.

26.1.1.   Contractor Approach: The Contractor shall establish multi-dimensional data marts based on the need for subject area or the business need.

26.1.2.   Requirement Stage: BIDM Implementation Contract Stage III

26.2.   Reference #3450: The Contractor shall provide authorized BIDM users easy access to, and analysis of, all data stored in the BIDM.

26.2.1.   Contractor Approach: The Contractor shall provide authorized system users access to the data in whatever BI environment and tool is most appropriate for answering the business question at hand.

26.2.2.   Requirement Stage: BIDM Implementation Contract Stage II

26.3.   Reference #3451: The Contractor shall provide data marts that optimize the querying, analyzing, and reporting of data in the BIDM.

26.3.1.   Contractor Approach: The Contractor, working with the Department, shall identify when the analytic requirements necessitate creation of a specialized data mart. When the need for a data mart has been identified, the Contractor shall create the data mart using existing conformed dimensions where possible.

26.3.2.   Requirement Stage: BIDM Implementation Contract Stage III

26.4.   Reference #3452: The Contractor shall provide data models that optimize the querying, analyzing, and reporting of data in the BIDM.

26.4.1.   Contractor Approach: The Contractor shall design the solution to include a person-centric data model that reflects the analytic requirements of the Department. In the ODS, data warehouse, and dimensional data marts, the structures shall be designed to answer both ad hoc and recurring questions. These structures shall support the kinds of analysis needed to support a large, modern Medicaid agency.

26.4.1.1.   The ODS shall be designed to support queries about the current state of the operational systems that feed the data warehouse. The data warehouse shall support historical analysis of the information that has been gleaned from the operational systems. The dimensional data marts shall use conformed dimensions to easily support the drill down and drill across queries.

26.4.2.   Requirement Stage: BIDM Implementation Contract Stage III

26.5.   Reference #3453: The Contractor shall provide multi-dimensional data, such as, OLAP and cubes, in conjunction with the Department that allows authorized BIDM users the ability to query, analyze, and report via System Tools.

26.5.1.   The Contractor's use of multi-dimensional data shall optimize the retrieval and utilization of data in the BIDM.

26.5.2.   Contractor Approach: The Contractor shall provide multi-dimensional data, such as OLAP and cubes, that allows authorized BIDM users the ability to query, analyze, and report via System Tools, based on information from and as approved by the Department.

26.5.2.1.   The Contractor's use of multi-dimensional data shall optimize the retrieval and utilization of data in the BIDM.

26.5.3.   Requirement Stage: BIDM Implementation Contract Stage III

26.6.   Reference #3454: The Contractor shall provide the ability to accept, store, and search all information received from the incumbent contractor that facilitates fast and accurate information retrieval by the Contractor and Department.

26.6.1.   Contractor Approach: The Contractor shall provide the ability to accept, store, and search all information received from the incumbent contractor in order to facilitate fast and accurate information retrieval by the Contractor and Department.

26.6.2.   Requirement Stage: BIDM Implementation Contract Stage II

26.7.   Reference #3455: All data models shall be stored in a repository so that they can be retrieved, expanded, and edited over time.

26.7.1.　Contractor Approach: All data models shall be stored in a repository so that they can be retrieved, expanded, and edited over time.

26.7.2.　Requirement Stage: BIDM Implementation Contract Stage II

26.8.　Reference #3456: All data models shall be available on-line in searchable, human readable format.

26.8.1.　Contractor Approach: The Contractor will make all productionized data models available on-line in searchable, human readable format.

26.8.2.　Requirement Stage: BIDM Implementation Contract Stage II

27. SANDBOX

27.1.　Reference #3457: Within the Sandbox environment, the Contractor shall provide the ability for authorized BIDM users to create tables and to have administrative authority over the tables, including, but not limited to, the ability to perform data edits, perform field edits, add data, delete data and drop data into the BIDM.

27.1.1.　Contractor Approach: Within the Sandbox environment, the Contractor shall provide the ability for authorized BIDM users to create tables and to have administrative authority over the tables, including, but not limited to, the ability to perform data edits, perform field edits, add data, delete data and drop data into the BIDM.

27.1.2.　Requirement Stage: BIDM Implementation Contract Stage I

27.2.　Reference #3458: The Contractor shall provide the ability for authorized BIDM users to create, edit, and save user-defined fields and tables within the Sandbox environment.

27.2.1.　Contractor Approach: Within the Sandbox environment, the Contractor shall provide the ability for authorized BIDM users to create, edit, and save user-defined fields and tables within their schema.

27.2.2.　Requirement Stage: BIDM Implementation Contract Stage I

27.3.　Reference #3459: Each authorized BIDM user who is authorized to work in the Sandbox shall have a defined space or size allocation to contain their tables in the Sandbox.

27.3.1.　Contractor Approach: The Contractor shall allocate usable space in the Sandbox environment to each authorized system user so that he or she can use it to manipulate data in any manner deemed fit, as described in the System Operations and Maintenance Plan.

27.3.2.　Requirement Stage: BIDM Implementation Contract Stage I

27.4.　Reference #3460: The Contractor shall provide authorized BIDM users access to all data in the BIDM through the Sandbox.

27.4.1.　Contractor Approach: The Contractor shall provide BIDM Sandbox users access to all authorized data in the BIDM through the Sandbox.

27.4.2.　Requirement Stage: BIDM Implementation Contract Stage I

27.5.　Reference #3461: The Contractor shall provide each authorized BIDM user with role-based access to the Sandbox with a defined area in the Sandbox to contain their database objects and work products, such as, tables, views, relationships, synonyms and analyses.

27.5.1.　Contractor Approach: The Contractor shall provide each authorized BIDM user with role-based access to the Sandbox in a user specific schema, providing an area to contain their database objects.

27.5.2. Requirement Stage: BIDM Implementation Contract Stage I

27.6. Reference #3462: Within the Sandbox environment, the Contractor shall provide the ability for authorized BIDM users to import and export data into and out of tables.

27.6.1. Contractor Approach: Within the Sandbox environment, the Contractor shall provide the ability for authorized BIDM users to import and export data into and out of tables.

27.6.2. Requirement Stage: BIDM Implementation Contract Stage I

27.7. Reference #3463: Within the Sandbox environment, the Contractor shall provide the ability for authorized BIDM users to grant access which enables other authorized BIDM users to query, analyze, and report on objects in their schema.

27.7.1. Contractor Approach: The Contractor shall provide Sandbox users the appropriate role-based access over their schemas. Users shall be provided full authority over objects within their schema and shall be responsible for properly securing the objects.

27.7.2. Requirement Stage: BIDM Implementation Contract Stage I

27.8. Reference #3464: Within the Sandbox environment, the tables shall be temporary and their deletion shall be under the control of the authorized BIDM user.

27.8.1. Each table in the Sandbox shall belong to a specific BIDM user.

27.8.2. Contractor Approach: Within the Sandbox environment, the tables shall be temporary and their deletion shall be under the control of the authorized BIDM user.

27.8.2.1. Each table in the Sandbox shall belong to a specific BIDM user

27.8.3. Requirement Stage: BIDM Implementation Contract Stage I

27.9. Reference #3465: Within the Sandbox environment, an authorized BIDM user shall have the ability to modify or delete objects within their schema in accordance with the Physical and System Security Plan.

27.9.1. Contractor Approach: The Contractor shall provide authorized BIDM users with the ability to modify or delete objects within their schema in accordance with the Physical and System Security Plan.

27.9.2. Requirement Stage: BIDM Implementation Contract Stage I

27.10. Reference #3466: Authorized BIDM users shall receive system generated reports on the size and number of objects created in the Sandbox by each authorized BIDM user on a timeframe as described in the Communication Management Plan.

27.10.1. Contractor Approach: In order to monitor disk space, the Contractor shall generate reports for each Sandbox user, showing them each object in their schema and how much space is being used. These reports shall be automated and shall be sent to each user as well as to database administrators on a timeframe as described in the Communication Management Plan.

27.10.2. Requirement Stage: BIDM Implementation Contract Stage I

27.11. Reference #3467: The Contractor shall provide the ability to increase the defined space or size allocation for authorized BIDM users who are authorized to work in the Sandbox on an as needed or temporary basis.

27.11.1. Contractor Approach: The Contractor shall provide the ability to increase the defined space or size allocation for authorized BIDM users should individual users have tasks that require more space on an as-needed or temporary basis.

27.11.2. Requirement Stage: BIDM Implementation Contract Stage I

27.12. Reference #3468: The Contractor shall monitor and maintain the Sandbox environment to ensure adequate performance.

27.12.1. Contractor Approach: Automated monitoring shall be set up to ensure adequate performance and quickly alert system administrators if a problem arises. The Contractor shall inform the Department on a regular basis regarding system performance.

27.12.2. Requirement Stage: BIDM Implementation Contract Stage I

27.13. Reference #3469: The performance and size of the Sandbox shall be reassessed at least annually and the solution shall be scaled accordingly.

27.13.1. Contractor Approach: The Contractor shall treat the Sandbox as any other part of the BIDM when it comes to availability, performance, support, patches, and system maintenance, annually reassessing the performance and size of the sandbox and scaling accordingly.

27.13.2. Requirement Stage: BIDM Implementation Contract Stage I

27.14. Reference #3470: The Contractor shall annually scale the Sandbox and associated functionality in accordance with the results of the annual assessment of performance and size.

27.14.1. Contractor Approach: The Contractor shall annually scale the Sandbox and associated functionality in accordance with the results of the annual assessment of performance and size in accordance with the Change Management Process.

27.14.2. Requirement Stage: BIDM Implementation Contract Stage I

28. BIDM WEB PORTAL REPORTING

28.1. Reference #3471: Contractor shall develop and maintain a BIDM Web Portal to enable authorized BIDM users to view and download ad hoc and standardized reporting.

28.1.1. This ad hoc and standardized reporting shall include, but is not limited to, all of the following:

28.1.1.1. The ability to export a provider's entire client list.

28.1.1.2. The ability to export, in real-time, a provider's entire list of attributed clients, as described in the DSD.

28.1.1.3. At the time of service, real-time access to current client health plan benefits, including formulary and services requiring prior authorization, as described in the DSD.

28.1.1.4. Provision of a client health profile, which includes previous claims/encounters data and related information available through the data warehouse.

28.1.1.5. Provision of data analytics, which include, client risk scores, population risk scores, chronic illness levels, and care management plans.

28.1.1.6. Provide prompt-based versions of the reports that authorized BIDM users may run on demand for any specified timeframe.

28.1.2. The Contractor shall publish reports to authorized BIDM users through the BIDM Web Portal on a schedule as agreed to between the Department and the Contractor or as described in the Communication Management Plan.

28.1.3. Contractor Approach: The Contractor shall deliver its Solution Center, a configurable COTS browser-based web portal, to be the landing page of the BIDM Web Portal. The portal shall be made available to authorized BIDM users. The Solution Center shall provide access to applications to meet the Department's specified reporting and analytic needs, including care management, population management, quality improvement and cost management. From the Solution Center BIDM Web Portal, users shall be able to select icons to move to targeted interfaces. Some of these interfaces shall support standardized reporting and others shall provide ad hoc reporting. Contractor shall provide its physician engagement solution, which allows authorized users to view historical reports, pre-generated reports, interactive dashboards and prompt based reports that provide targeted information.

28.1.3.1. Export the Provider's Client List: The Contractor shall cause authorized users to be able to access in real-time reports such as the physician's client lists and current client benefit plan information, then export or download the reports for reference offline. The Contractor shall cause Providers to be able to drill down to detailed information about their patients. The physician engagement component shall also deliver a patient action list showing gaps in care as defined using evidence-based national quality standards.

28.1.3.2. Export Real-Time a Provider's List of Attributed Clients: The Contractor shall provide the ability to authorized users to run a report that includes patient demographic information for the entire list of patients attributed to a specific physician or physician practice. Physicians accessing the Contractor's physician engagement solution shall be able to utilize the export options, allowing them to save any of the reports provided and making them accessible outside of the application.

28.1.3.3. Real-Time Access to Health Plan Benefits: The Contractor shall provide to authorized users of the BIDM Web Portal real-time access to data stored on the data warehouse and specialty reporting data marts on current client health plan benefits, including formulary and services requiring prior authorization.

28.1.3.4. Client Health Profile: The Contractor shall cause authorized users of the BIDM Web Portal to have access to a Patient Health Record (PHR), which is a client health profile. This feature shall provide the ability to drill down from a person-level report, such as client action list, high cost client list or diabetic client list, to see underlying patient and claims detail information. The PHR shall also be accessible through a separate application, Patient Profiling, which allows authorized users to enter a Person ID to view the profile. Both access points shall take the user to the same underlying application, which shows summary patient information, such as gaps in care, demographics, summary costs, projected health costs, utilization history, and episode summary, as well as detail information on recommended care, medical/Rx claims, and clinical lab results data, when available. The PHR shall provide a graphical display of a patient's utilization by type of care, such as inpatient, outpatient and prescription drug, along with extensive information on clinical conditions, such as expected medical cost projections and detailed claims history.

28.1.3.5. Data Analytics including Client and Population Risk Scores: The Contractor shall deliver data analytics in a variety of features in its Advantage Suite component, including client risk scores and population risk scores via diagnostic cost group (DCG) models from Verisk

Health, Inc., and Contractor's risk-adjusted episodes that combine dimensions of a patient's condition—the risk of the member (patient), the relative risk score, and the severity of the episode as measured by the disease staging method. For care management analytics, Contractor shall provide the DCG likelihood of hospitalization (LOH) predictive model, which scores the likelihood a person will be hospitalized within the next six months for conditions that are both predictable and actionable, in order to identify opportunities for case management intervention.

28.1.3.6. Prompt-Based Reports: The Contractor shall provide the ability to view historical reports, pre-generated reports, interactive dashboards and prompt based reports that provide targeted information. Parameterized, prompt-based reporting shall give users who frequently look at the same type of data a simple way to run, view, and download an ad hoc report, including detail-level data. The report format shall be standardized, but the particular data represented in the report is based on a variable or parameter that the user supplies. Contractor shall develop prompted reports to be run, viewed, and downloaded by authorized users as requested by the Department.

28.1.4. Requirement Stage: BIDM Implementation Contract Stage III

28.2. Reference #3472: Provide the ability for authorized BIDM users to view and download pre-defined reports per the user's role-based designation via the BIDM Web Portal.

28.2.1. Contractor Approach: The Contractor shall deliver a tool, such as the Advantage Suite tool, that allows authorized BIDM users to view and download pre-defined reports per the user's role-based designation via the BIDM Web Portal. The Contractor shall provide a ready-made set of primary care provider (PCP) and specialty profiling reports to physician engagement users. For direct physician access, Contractor shall provide its physician engagement solution, which allows authorized physician users to view historical reports, pre-generated reports, interactive dashboards and prompt based reports that provide targeted information.

28.2.2. Requirement Stage: BIDM Implementation Contract Stage III

28.3. Reference #3473: The Contractor shall provide the ability for dashboard reporting within the BIDM Web Portal.

28.3.1. Contractor Approach: Contractor shall provide in the BIDM Web Portal the ability to view historical reports, pre-generated reports, interactive dashboards and prompt based reports that provide targeted information.

28.3.2. Requirement Stage: BIDM Implementation Contract Stage III

28.4. Reference #3474: The Contractor shall provide the ability for authorized BIDM users to configure dashboard reporting within the BIDM Web Portal.

28.4.1. Contractor Approach: Contractor shall deliver in the BIDM Web Portal high-impact graphical information including interactive dashboards and prompted queries. The dashboards shall be Configurable at the direction of the Department.

28.4.2. Requirement Stage: BIDM Implementation Contract Stage III

28.5. Reference #3475: The Contractor shall develop and implement provider-specific dashboards to provide easy and intuitive access to monthly provider performance on Accountable Care Collaborative (ACC) Key Performance Indicator (KPI) metrics.

28.5.1.   Contractor Approach: The Contractor shall allow providers to see their individual physician scorecard with peer group comparisons. The BIDM shall provide simple navigation that allows providers, using tabs across the top of the screen, to move through clinical and cost trends as well as their patient action lists with drill-through to the Patient Health Record. In addition, the BIDM shall include documentation to understand in detail the measures, methods, and reports presented. The BIDM shall enable the generation of files for electronic dissemination of physician scorecards to the physicians or other stakeholders.

28.5.1.1.   Physicians shall be able to log into the web application to view their own scorecard information and detailed reports, while other users with broader access shall be able to view multi-physician reports for physician comparison across regions or specialties. Areas of customization shall include peer group definition, measure selection, threshold criteria, scoring algorithms, and outlier exclusion criteria.

28.5.1.2.   The Contractor shall enable performance measures such as the ACC KPIs to be incorporated directly into the physician engagement solution for providers as customized measure selections, or include them in the practice dashboards. Physicians shall also be allowed to access parameterized reports; static versions of the historical SDAC reports; and practice dashboards, as well as view the reports as tabular data or as charts. The BIDM shall use nationally endorsed quality measures that can be calculated using administrative claims data or other required data if available.

28.5.2.   Requirement Stage: BIDM Implementation Contract Stage II

28.6.   Reference #3476: Contractor shall develop and implement provider-specific dashboards to provide easy and intuitive access to monthly provider performance on average total cost of care metrics.

28.6.1.   Total cost of care shall be available on a Per Member Per Month (PMPM) basis.

28.6.2.   Contractor Approach: The BIDM shall provide the initial core set of health care quality measures for both adult Medicaid enrollees and Children's Health Insurance Program (CHIP) enrollees that can be calculated using administrative data only, or for which other required data are available and in BIDM scope, such as, vital records. Contractor shall enable these measures, and others such as the ACC KPIs and PMPM, to be incorporated directly into the physician engagement solution for providers as customized measure selections, or include them in the practice dashboards.

28.6.3.   Requirement Stage: BIDM Implementation Contract Stage III

28.7.   Reference #3477: The Contractor shall provide current and historical Statewide Data Analytics Contractor (SDAC) reporting and analytics to providers through the BIDM Web Portal.

28.7.1.   Contractor Approach: The BIDM shall allow authorized users to have access to static versions of the historical SDAC reports as well as the ability to create new SDAC reports using available current and historical data. The static versions of these reports shall provide referential integrity of the information reported. Contractor shall provide DCG risk scoring instead of the CRG method the Department used in historical SDAC reports.

28.7.1.1.   Contractor shall create historical representations of the SDAC reports for use in trend analysis, based on information from and as approved by the Department. Contractor shall work with the Department to develop template reports for current and future SDAC reports. Contractor shall enable the new SDAC reports to include any standard or custom-created measure available in the Advantage Suite Measure Catalog. Contractor shall provide Department users with access to the Patient Health Record (PHR). The PHR includes patient

demographics, cost and utilization information, historical claim details, clinical conditions, and gaps in care.

28.7.2.   Requirement Stage: BIDM Implementation Contract Stage III

28.8.   Reference #3478: ACC performance analytics and reports provided in the BIDM Web Portal shall have the ability to drill up and drill down by attributed providers, such as being able to drill up from an individual clinician to practice to multiple practice to RCCO.

28.8.1.   Contractor Approach: The BIDM shall enable RCCOs and other authorized users to have the ability to drill down from the multi-physician reports to individual physicians by selecting an individual physician ID, as well as to the client-level detail that individual physicians view by selecting a client ID, and drilling up using the simple navigation.

28.8.2.   Requirement Stage: BIDM Implementation Contract Stage III

28.9.   Reference #3479: The Contractor shall provide the ability for authorized BIDM users to download and export reports from the BIDM Web Portal to their local machine in Adobe pdf, Microsoft Excel and other standard formats.

28.9.1.   Contractor Approach: Contractor shall deliver one or more software components that allow authorized BIDM users to download and/or export reports to their local machines in the required standard formats.

28.9.2.   Requirement Stage: BIDM Implementation Contract Stage III

28.10.   Reference #3480: Contractor shall develop and implement provider-specific dashboards to provide easy and intuitive access to monthly provider performance reports on Adult Medicaid Quality Grant (AMQG) metrics.

28.10.1.   Contractor Approach: The BIDM shall support the initial core set of health care quality measures for both AMQG enrollees and CHIP enrollees that can be calculated using administrative data only, or for which other required data are available and in BIDM scope, such as vital records. Contractor shall enable these measures, and others such as the ACC KPIs or PMPM, to be incorporated directly into the physician engagement solution for providers as customized measure selections, or be included in the practice dashboards.

28.10.2.   Deliverable: AMQG Provider Specific Dashboard

28.10.3.   Deliverable Stage: BIDM Implementation Contract Stage III

28.11.   Reference #3481: The Contractor shall make monthly performance reports on AMQG measures available to all ACC participating providers via the BIDM Web Portal.

28.11.1.   Contractor Approach: Contractor shall perform monthly updates of the data mart and cause the measures that are calculated to be automatically updated and available for review.

28.11.2.   Requirement Stage: BIDM Implementation Contract Stage III

28.12.   Reference #3482: The Contractor shall post quarterly provider incentive payment calculation reports to the BIDM Web Portal for each ACC participating provider.

28.12.1.   Contractor Approach: Contractor shall include the quarterly incentive payment measures for ACC participating providers in the measures available to those providers in the PPA interface, allowing them to see their individual performance for the KPIs and the associated quarterly payments.

28.12.2.   Deliverable: Quarterly Incentive Payment Calculation Reports

28.12.3.   Deliverable Stage: BIDM Implementation Contract Stage III

28.13.   Reference #3483:   The Contractor shall provide functionality in the BIDM Web Portal for authorized BIDM users to look up, via client ID, at least a twenty-four- (24-) month historical patient profile of billed services for any client.

28.13.1.   The Patient profile shall present billed services organized by service category, such as, Inpatient, Outpatient, Professional, Pharmacy, Oral, Behavioral Health and Long-term Care, and provide other client analytics as directed by the Department.

28.13.2.   Contractor Approach: Contractor shall deliver its PHR and make it accessible through the Patient Profiling application, which allows authorized users to enter a Person ID to view the PHR. The PHR shall show summary patient information, such as gaps in care, demographics, summary costs, projected health costs, utilization history, and episode summary, as well as detail information on recommended care, medical/Rx claims, and clinical lab results data, when available. The PHR shall provide a graphical display of a patient's utilization by type of care, such as inpatient, outpatient, and prescription drug, along with information such as clinical conditions, expected medical cost projections, and detailed claims history.

28.13.3.   Requirement Stage: BIDM Implementation Contract Stage III

28.14.   Reference #3484: The Contractor shall provide the ability for authorized BIDM users to run, view, and download pre-defined reports with embedded prompts, per the user's role-based designation via the BIDM Web Portal.

28.14.1.   Contractor Approach: Contractor shall provide parameterized, prompt-based reporting that gives users who frequently look at the same type of data a simple way to run, view, and download an ad hoc report, including reports on detail-level data. Contractor shall standardize the report format, but the particular data represented in the report shall be based on a variable or parameter that the user supplies.

28.14.2.   Requirement Stage: BIDM Implementation Contract Stage III

28.15.   Reference #3485:   The Contractor shall provide the ability through the BIDM Web Portal for authorized BIDM users to query, report, and analyze potentially preventable events such as emergency room visits or inpatient admissions related to ambulatory-sensitive conditions.

28.15.1.   Contractor Approach: Contractor shall provide within the BIDM metrics to support reporting to identify preventable events.

28.15.2.   Requirement Stage: BIDM Implementation Contract Stage III

28.16.   Reference #3486: The Contractor shall provide the ability for authorized BIDM users to receive alerts through the BIDM Web Portal.

28.16.1.   Contractor Approach: Contractor shall provide a tool that can be used to alert decision-makers of events as they happen; an event is identified when specific items in the data achieve significant values. The BIDM shall enable users to specify the event condition, or a change in data, important to them; when an agent detects an event, it shall be able to perform tasks such as sending an email, adding information to the portal, and running reports.

28.16.2.   Requirement Stage: BIDM Implementation Contract Stage III

28.17.   Reference #3487: The Contractor shall develop, document, maintain, and provide, per Department specifications, a BIDM Web Portal usage report.

28.17.1. The Contractor shall produce and distribute the report(s) as agreed upon and outlined in the System Operations and Maintenance Plan.

28.17.2. Contractor Approach: Contractor shall produce standard Usage Reporting to review BIDM Web Portal usage and performance. Contractor shall provide a high-level view of key user metrics, such as how many reports were run by which users, how long each report ran, and average statistics such as the median report time.

28.17.3. Deliverable: BIDM Web Portal Usage Report

28.17.4. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

28.18. Reference #3488: Contractor shall update standardized reporting in the BIDM Web Portal.

28.18.1. Contractor Approach: Contractor shall update the standard reports in the BIDM Web Portal on the following frequencies:

28.18.1.1. Physician Engagement – updated as frequently as monthly.

28.18.1.2. Patient Health Record (PHR) / Patient Profiling – updated as frequently as monthly.

28.18.1.3. Advantage Suite Ad Hoc Report Writer – updated as frequently as monthly.

28.18.1.4. Dashboards – updated as frequently as daily depending on the data source.

28.18.1.5. Parameterized, Prompted Reports – updated as frequently as daily depending on the data source.

28.18.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

29. DERIVED DATA ELEMENTS AND ANALYTICS

29.1. Reference #3489: The Contractor shall maintain and provide documentation of the BIDM calculations and reports.

29.1.1. This shall include documentation of all of the following:

29.1.1.1. The logic that is used to derive all calculations in the BIDM.

29.1.1.2. The development, notes, and parameters associated with all reports.

29.1.1.3. An audit trail for all calculations and reports.

29.1.1.4. Descriptions of all data elements used in calculations and reporting.

29.1.2. Contractor Approach: The Contractor shall maintain and provide documentation of the logic that is used to derive calculations in the BIDM. The ETL tool, such as Informatica, and the various BI tools, such as Cognos and SAS, provide metadata repositories. Information about all attributes presented in these systems will be documented in these repositories. This includes documenting the business meaning of an element as well as how derived data elements are calculated. All changes to these derived data elements shall be tracked and audited within the BIDM application.

29.1.3. Requirement Stage: BIDM Implementation Contract Stage III

29.2. Reference #3490: The Contractor shall provide complete transparency of all Contractor derived data fields.

29.2.1. This shall include, but is not limited to, transparency into how the Contractor derived the data field, by providing the Department with SQL, pseudo code, narrative description, or some

combination thereof to completely and unambiguously document the precise algorithms and formulae used in all measures, client risk scores, computed variables, and analytic protocols.

29.2.2.   Contractor Approach: The Contractor shall provide complete transparency of all Contractor derived data fields. The data integration tool and the various business intelligence tools, such as Cognos and SAS, shall have robust metadata repositories. Information about all attributes presented in these systems shall be documented in these repositories. This shall include documenting the business meaning of an element as well as how derived data elements are calculated. Information on these derived data fields shall then be available in reports or as pop-up Help dialogue in the various tools. In addition, critical metadata about these derived data elements shall be captured in the business glossary.

29.2.3.   Requirement Stage: BIDM Implementation Contract Stage III

29.3.   Reference #3491: The BIDM shall support both native ICD-9 and ICD-10 codes in all aspects of BIDM functionality based on the claim/encounter date of service.

29.3.1.   Contractor Approach: The BIDM shall support both native ICD-9 and ICD-10 codes in all aspects of BIDM functionality based on the claim/encounter date of service.

29.3.2.   Requirement Stage: BIDM Implementation Contract Stage II

29.4.   Reference #3492: The Department will provide a crosswalk between ICD-9 and ICD-10 that the Contractor shall capture and maintain in the BIDM.

29.4.1.   This crosswalk shall be available for authorized BIDM users to query and report on.

29.4.2.   Contractor Approach: The Contractor shall incorporate both ICD-9 and ICD-10 codes into claims as passed into the system. Authorized users shall be able to join claims to crosswalk tables.

29.4.3.   Requirement Stage: BIDM Implementation Contract Stage III

29.5.   Reference #3493: The BIDM shall capture date-sensitive occurrences that may impact analytics and reports, such as, rate changes, policy changes, health plan changes, legislation and limited program timeframes. The BIDM shall provide the ability for authorized BIDM users to incorporate the date-sensitive occurrences into queries and reports.

29.5.1.   If the Department identifies any additions or other modifications to this data, the Contractor shall enter those additions and modifications into the BIDM in accordance with the Change Management Plan.

29.5.2.   Contractor Approach: The Contractor shall design reference tables, based on information from the Department, that shall be populated from BIDM Data Exchanges as defined in the DSD.

29.5.3.   Requirement Stage: BIDM Implementation Contract Stage III

29.6.   Reference #3494: The Contractor shall provide the ability to store, maintain, and retrieve dates associated with changes in major policy, rate, reimbursement, budget, and any other Department-defined criteria among data sets, as provided by the Department.

29.6.1.   Contractor Approach: The Contractor shall provide the ability to store, maintain, and retrieve dates associated with major events as provided by the Department.

29.6.2.   Requirement Stage: BIDM Implementation Contract Stage III

29.7.   Reference #3495: The Contractor shall provide the ability for authorized BIDM users to define client peer group classifications and query, analyze, and report on that data.

29.7.1. Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to define client peer group classifications and query, analyze, and report on that data.

29.7.2. Requirement Stage: BIDM Implementation Contract Stage III

29.8. Reference #3496: The Contractor shall provide the ability to identify, query, analyze, and report on clients with special health care needs.

29.8.1. Contractor Approach: The Department shall be able to identify clients with special healthcare needs and group them together for analyses. The Contractor shall build into the data warehouse the fields that the Department uses to identify these clients, such as waiver program codes and grouper methodologies.

29.8.2. Requirement Stage: BIDM Implementation Contract Stage II

29.9. Reference #3497: The Contractor shall provide the ability to store Health Benefit Plans, including, but not limited to, population criteria, benefits and reimbursement methodology, from the Core MMIS and the PBMS in the BIDM for use in analysis and modeling.

29.9.1. Contractor Approach: During the analysis and design phases, the Contractor shall determine the best way to persist health benefit plan information in the various data stores that make up the Department's comprehensive DW solution, based on information from and as approved by the Department. The Contractor shall design reference tables, based on information from the Department, that shall be populated from BIDM Interfaces and BIDM Data Exchanges as defined in the DSD.

29.9.2. Requirement Stage: BIDM Implementation Contract Stage III

29.10. Reference #3498: The BIDM shall provide the ability to query and report on the historical record of a specific Health Benefit Plan that is date specific.

29.10.1. Contractor Approach: The Contractor shall provide authorized users the ability to query and report on a date specific historical record of a Health Benefit Plan.

29.10.2. Requirement Stage: BIDM Implementation Contract Stage III

29.11. Reference #3499: The Contractor shall provide the ability to quickly and easily track the life cycle of claims/encounters from original submission date through all adjustments, including partial and system-generated adjustments.

29.11.1. This shall include the ability to clearly identify the most recent version of the claim/encounter.

29.11.2. Contractor Approach: The Contractor shall retain all original, voided, and adjusted claims/encounters in the data warehouse. The Contractor shall include adjustments generated by the system as well as those submitted by providers. The Contractor shall include non-claims adjustments as well as those at the claim level. The most recent version of the claim shall be flagged with a Last Claim Indicator so that it can be easily located for reporting purposes.

29.11.2.1. This shall include the ability to clearly identify the most recent version of the claim/encounter.

29.11.3. Requirement Stage: BIDM Implementation Contract Stage III

29.12. Reference #3500: The Contractor shall provide the ability to create new fields and to report on the data within the new fields as needed.

29.12.1. Contractor Approach: The Contractor shall provide a core Medicaid model as well as configure new fields on top of that model, as needed. Further, derived data fields shall be able to be created

easily in the BIDM by end users, based on the data that is already in the data warehouse. In addition, authorized advanced users shall be able to pull external data into the Sandbox and use it for analysis in their reports.

29.12.2.   Requirement Stage: BIDM Implementation Contract Stage III

29.13.   Reference #3501: The Contractor shall provide and maintain a date-specific cross-walk between accounting codes and other defined data fields in the BIDM.

29.13.1.   Contractor Approach: The Contractor shall link accounting codes with other defined data fields in the BIDM.

29.13.2.   Requirement Stage: BIDM Implementation Contract Stage II

29.14.   Reference #3502:   The Contractor shall maintain groupers used in reimbursement methodologies/classifications, such as in-patient hospital APR-DRG and ambulatory patient group, in the Core MMIS in the BIDM for analysis and reporting.

29.14.1.   Contractor Approach: The Contractor shall retain the state-specific DRG codes or other classification used for reimbursement as passed from the MMIS, along with any related information, to support analysis based on how the claim was paid. This approach shall ensure consistency with data from the Core MMIS.

29.14.2.   Requirement Stage: BIDM Implementation Contract Stage II

29.15.   Reference #3503: The Contractor shall provide the ability to associate National Drug Codes (NDCs), as used in the PBMS, into higher level groupings and classifications, such as, therapeutic classes, generic codes and Generic Code Number (GCN), in the BIDM for querying, analyzing and reporting.

29.15.1.   Contractor Approach: The Contractor shall leverage its existing drug database which employs a 10-digit hierarchical code that categorizes drugs down to the generic ingredient level. The BIDM shall permit easy identification of all drugs with comparable actions and uses, and allow quick determination of the specific attributes of any drug in a major therapeutic class. The Contractor shall make this available to authorized BIDM users for querying, analyzing and reporting. The Contractor shall also provide fields in the Data Warehouse to capture the commercial drug information passed to the BIDM from the PBMS.

29.15.2.   Requirement Stage: BIDM Implementation Contract Stage II

29.16.   Reference #3504: The Contractor shall provide the ability to identify, query, analyze, and report on episodes of care or other bundled services as specified by authorized BIDM users.

29.16.1.   Contractor Approach: The Contractor shall incorporate a medical episode grouper into the BIDM data warehouse and authorize users to identify, query, analyze and report on episodes of care.

29.16.2.   Requirement Stage: BIDM Implementation Contract Stage III

29.17.   Reference #3505: The Contractor shall provide current and historical comparisons of Medicaid and Medicare rates, by specific code and dates, identifying rates for both programs, the difference between the two rates, and the Medicaid rate as a percentage of the Medicare rate.

29.17.1.   Contractor Approach: The Contractor shall store current and historical Medicaid and Medicare rates for comparison purposes. The Contractor shall develop, document, provide, and maintain a recurring report showing the difference and percent difference between Department and Medicare rates, for specified time periods by procedure or service code and modifier where it

impacts reimbursement. The Contractor shall also make the rate data available to authorized users for their analysis.

29.17.2. Requirement Stage: BIDM Implementation Contract Stage III

29.18. Reference #3506: The BIDM shall capture and maintain date-sensitive data identifying differences between Medicaid and Medicare standard units and provide the capability for authorized BIDM users to incorporate the data into queries, analyses, and reports.

29.18.1. Contractor Approach: The Contractor shall design the BIDM to include a reference table that captures date-sensitive information on differences between Medicaid and Medicare standard units. The Contractor shall design reference tables, based on information from the Department, that shall be populated from BIDM Data Exchanges as defined in the DSD.

29.18.2. The Department shall assist the Contractor in identifying the differences.

29.18.3. Requirement Stage: BIDM Implementation Contract Stage III

30. STATISTICAL ANALYTICS AND SYSTEM TOOLS

30.1. Reference #3507: The Contractor shall provide scheduling and automation capabilities for queries and reports within the application, such as the System Tools.

30.1.1. Contractor Approach: The Contractor shall provide query and report scheduling and automation capabilities that allow users to run reports and queries interactively, in the background, or scheduled for a later date/time.

30.1.2. Requirement Stage: BIDM Implementation Contract Stage II

30.2. Reference #3508: The Contractor shall provide the ability to query, analyze, and report on alerts passed to the BIDM Interface from the Core MMIS and PBMS.

30.2.1. Contractor Approach: The Contractor shall identify alerts that need to be accepted and reported on as a part of the normal processes that occur within the BIDM Data Warehouse based on thresholds defined by the business, based on information from and as approved by the Department.

30.2.2. Requirement Stage: BIDM Implementation Contract Stage II

30.3. Reference #3509: The BIDM shall support easy-to-use data-merge functionality delivering clean contact data and Department prescribed standard text snippets/passages into standard PC and Mac desktop applications.

30.3.1. Contractor Approach: The Contractor shall ensure person names, corporation names, and locations are cleansed and formatted based on the business rules of the Department. Contact information shall be in the right format whenever that information is needed.

30.3.2. Requirement Stage: BIDM Implementation Contract Stage III

30.4. Reference #3510: The Contractor shall design, implement, and maintain Graphical User Interfaces (GUI) that are intuitive and easy to use.

30.4.1. Contractor Approach: The Contractor shall ensure that all tools have easy-to-use GUI that are intuitive and easy to use, thus empowering non-programmers and occasional users to run sophisticated healthcare analytics.

30.4.2. Requirement Stage: BIDM Implementation Contract Stage III

30.5. Reference #3511: The business intelligence tool and analytics tools shall also have the capability of incorporating external data with BIDM data for querying, analyzing and reporting, such as using data from a file on the BIDM user's desktop.

30.5.1. Contractor Approach: The Contractor shall deliver business intelligence and analytics tools that support the incorporation of external data with BIDM data for querying, analyzing and reporting. The tools shall manage a variety of capabilities for translating files to be imported into or exported out of the BIDM from one format to another. The BIDM shall allow users to load a list of user-defined values, such as patient or provider IDs, to include in or exclude as part of a subset for reporting. The imported values shall be able to be copied in from a text file, email, spreadsheet or other document and used during report design to limit the data returned in the report. The BIDM shall allow users to include spreadsheets of data in their queries and, where authorized, connections to other data stores. Sandbox users shall be able to import external data in a variety of formats.

30.5.2. Requirement Stage: BIDM Implementation Contract Stage III

30.6. Reference #3512: THIS REQUIREMENT INTENTIONALLY DELETED

30.7. Reference #3513: The Contractor shall provide and maintain user-controlled and user-Configurable parameters for alerts, messages, emails, and notices.

30.7.1. Contractor Approach: To provide and maintain user-configurable parameters for alerts and related messages, the Contractor shall deliver systems with these capabilities. Users shall be able to set up alerts to automatically notify the analyst when pre-set exception thresholds are exceeded. The user shall be able to define the conditions for an alert, such as changes in an eligibility trend that exceeds a given threshold. The BIDM shall be able to be set to generate alerts when a spike in claims or other data feed occurs. These alerts shall be able to be routed to designated users so that they can take action appropriately and in a timely manner, as the events occur within the environment. The BIDM shall provide a graphical development and configuration environment, so authorized users will be able to modify and adapt the alerting rules to meet the ever-changing needs of your organization.

30.7.2. Requirement Stage: BIDM Implementation Contract Stage III

30.8. Reference #3514: The Contractor shall provide the ability to send and receive data or flags that trigger automated prompts for an authorized BIDM user to perform an action based on Department defined criteria, such as having the BIDM send data to the Case Management Tool that triggers automated prompts to case managers, when a client has a hospitalization, emergency room visits, new chronic condition diagnosis, or a multiple chronic condition diagnosis.

30.8.1. Contractor Approach: The Contractor shall provide the following capabilities to meet this requirement:

30.8.1.1. Reports shall be able to be developed in the BIDM to run periodically, as often as daily, and generate "Patient Action Lists", such as lists of members for whom a new inpatient admission claim or ER claim was received from the MMIS. The lists shall be able to be segmented by program, eligibility category, managed care organization or RCCO, county, or any other indicator for which there is a field passed from the source system, so that the appropriate alerts can be sent to the appropriate party, by the appropriate authority, as described in the DSD.

30.8.2. When clinical data from CORHIO becomes available to the BIDM data warehouse, the Contractor shall design reports that will go to case managers to trigger follow-up action.

30.8.3.   Requirement Stage: BIDM Implementation Contract Stage III

30.9.   Reference #3515: The Contractor shall provide the ability to create and maintain User-defined customized displays of reports and dashboards so that a BIDM User or group of Users sees only the information the User or group wants, in the order that the User or group desires to see it.

30.9.1.   Contractor Approach: The Contractor shall deliver system tools with easy-to-use report design features suitable to each application, such as point-and-click or drag-and-drop capability. Analysts shall be able to quickly construct their own reports, dashboards, and even perform complex analyses containing the information they want to see in the format in which they want it displayed.

30.9.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.10.   Reference #3516: The Contractor shall provide System Tools with the ability for authorized BIDM users to establish and modify delivery schedule and mode of delivery for static, ad-hoc, and user-defined reports.

30.10.1.   Contractor Approach: The Contractor shall provide query and report scheduling and automation capabilities that allow users to run reports and queries interactively, in the background, or scheduled for a later date/time.

30.10.2.   Requirement Stage: BIDM Implementation Contract Stage II

30.11.   Reference #3517: The Contractor shall provide the ability to search documents, reports, queries, and maps based upon their contents or user-specified keywords.

30.11.1.   Contractor Approach: The Contractor shall provide the ability to search documents, reports, queries, and maps based upon their contents or user-specified keywords.

30.11.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.12.   Reference #3518: As part of the System Tools, the Contractor shall include AHRQ's Quality Indicators Software, including, but not limited to, the, prediction module, Pediatric Quality Indicators (PDIs) and Preventive Quality Indicators (PQIs).

30.12.1.   Contractor Approach: The Contractor shall deliver the AHRQ Quality Indicators Software in SAS.

30.12.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.13.   Reference #3519: The Contractor shall provide the ability for authorized BIDM users to fully utilize the AHRQ's Quality Indicators Software using BIDM data.

30.13.1.   At a minimum, this shall allow case managers to have the information necessary to properly serve their clients and to meet their contractual obligations.

30.13.2.   Contractor Approach: Contractor shall create the base AHRQ data sets using the BIDM System data and load them in SAS. SAS users shall be able to utilize the AHRQ Quality Indicators Software with no additional effort on their part.

30.13.3.   Requirement Stage: BIDM Implementation Contract Stage III

30.14.   Reference #3520:   The Contractor shall provide System Tools that deliver asynchronous communication, alerts, and notifications to authorized BIDM users.

30.14.1. Contractor Approach: The Contractor shall deliver capability that can send asynchronous alerts as each event is triggered, such as net payments total for a physician exceeding a threshold, or the presence of a clinical condition targeted for intervention by case managers.

30.14.2. Requirement Stage: BIDM Implementation Contract Stage III

30.15. Reference #3521: The Contractor shall provide System Tools that allow authorized BIDM users to query, analyze, and report on any and all data in the BIDM.

30.15.1. Contractor Approach: The Contractor shall provide a set of specialized system tools for query, analysis, and reporting. Each authorized user shall have access to the tools and data elements that are appropriate for his or her skill level and business need, such that some users will have access to any and all data in the BIDM; other users will be limited by their security level.

30.15.2. Requirement Stage: BIDM Implementation Contract Stage II

30.16. Reference #3522: The Contractor shall provide a System Tool that allows authorized BIDM users to mine unstructured data.

30.16.1. Contractor Approach: The Contractor shall provide a system, such as the SAS Text Miner system, that allows authorized users to query and report on unstructured data.

30.16.2. Requirement Stage: BIDM Implementation Contract Stage III

30.17. Reference #3523: The Contractor shall provide a System Tool that provides authorized BIDM users with forecasting functionality, such as, estimations based on time series, cross-sectional and longitudinal data, simple linear regression, least square regression, and double exponential smoothing.

30.17.1. This shall include the ability to indicate the degree of uncertainty associated with forecasts.

30.17.2. Contractor Approach: The Contractor shall provide analytics software, such as SAS Analytics, delivering the required forecasting capabilities including econometric, time series, and forecasting techniques that enable modeling, forecasting, regression analysis, and simulation of business processes. This analytics software shall provide confidence limits to help reflect the degree of uncertainty associated with forecasts.

30.17.3. Requirement Stage: BIDM Implementation Contract Stage III

30.18. Reference #3524: The Contractor shall provide a System Tool that allows authorized BIDM users to develop and conduct root cause analysis.

30.18.1. Contractor Approach: The Contractor shall provide System Tools, such as Cognos BI, Advantage Suite and SAS Analytics, to meet root cause analysis requirements.

30.18.2. Requirement Stage: BIDM Implementation Contract Stage III

30.19. Reference #3525: The Contractor shall provide a System Tool that allows authorized BIDM users to develop and conduct trend analysis.

30.19.1. Contractor Approach: Contractor shall deliver several tools that support trend analysis such as Advantage Suite, SAS, Cognos and ArcGIS ESRI.

30.19.2. Requirement Stage: BIDM Implementation Contract Stage II

30.20. Reference #3526: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to develop, maintain, and report KPIs.

30.20.1.   Contractor Approach: The Contractor shall provide this capability via pre-defined yet configurable measures of program performance with the BIDM. The Department shall be able to select its KPIs from the system's catalog, or design new measures as KPIs.

30.20.2.   Requirement Stage: BIDM Implementation Contract Stage II

30.21.   Reference #3527: The Contractor shall provide a System Tool that will provide the ability for authorized BIDM users to translate files to be imported into or exported out of the BIDM from one format to another.

30.21.1.   This shall include the ability to translate files between all of the following formats:

30.21.1.1.   Access

30.21.1.2.   ASCII - Delimited and Fixed Format

30.21.1.3.   dBASE and compatible formats

30.21.1.4.   Data Documentation Initiative Schemas

30.21.1.5.   Epi Info

30.21.1.6.   Excel

30.21.1.7.   Gauss

30.21.1.8.   HTML, XML, API

30.21.1.9.   JMP

30.21.1.10.   LIMDEP

30.21.1.11.   Matlab

30.21.1.12.   Mineset

30.21.1.13.   Minitab

30.21.1.14.   NLOGIT

30.21.1.15.   ODBC

30.21.1.16.   OpenDocument Spreadsheets

30.21.1.17.   R

30.21.1.18.   SAS Data Files, Value Labels, CPORT, and Transport Files

30.21.1.19.   SPSS Portable and Data Files

30.21.1.20.   Stata

30.21.1.21.   Statistica

30.21.1.22.   SYSTAT

30.21.2.   Contractor Approach: The Contractor shall deliver tools with a variety of capabilities for translating files to be imported into or exported out of the BIDM from one format to another. In addition, Sandbox users may import data in a variety of formats. The table that follows indicates the formats supported for exporting data in reports and extracts.

30.21.2.1.   Minimum Formats Supported for Exporting Data from the BIDM Solution

FORMAT FOR OUTPUT (§ 3527, § 3550, § 3551)	BIDM SOLUTION EXPORT FORMAT CAPABILITIES
Access	Natively Supported (Cognos, SAS, Advantage)
ASCII - Delimited and Fixed Format	Natively Supported (Cognos, SAS, Advantage)
CSV	Natively Supported (Cognos, SAS, Advantage)
dBASE and compatible formats	Natively Supported (Cognos, SAS)
Data Documentation Initiative Schemas	Natively Supported (TOAD, Informatica)
Epi Info	Supported through flat file import/export
Excel	Natively Supported (Cognos, SAS, Advantage)
Gauss	Supported through flat file import/export
HTML, XML, API	Natively Supported (Cognos, SAS, Advantage)
JMP	Natively Supported (SAS)
LIMDEP	Supported through flat file import/export
Matlab	Supported through flat file import/export
Mineset	Supported through flat file import/export
Minitab	Supported through flat file import/export
NLOGIT	Supported through flat file import/export
ODBC	Natively Supported (TOAD)
Open Document Spreadsheets	Supported through flat file import/export
PDF	Natively Supported (Cognos, SAS, Advantage)
R	Natively Supported (SAS)
SAS Files, Value Labels, CPORT, Transport Files	Natively Supported (SAS)
SPSS Portable and Data Files	Natively Supported (Cognos, SAS)
Stata	Supported through flat file import/export
Statistica	Supported through flat file import/export
SYSTAT	Supported through flat file import/export
TXT	Natively Supported (Cognos)
Word (DOC)	Natively Supported (Cognos)

30.21.3.   Requirement Stage: BIDM Implementation Contract Stage III

30.22.   Reference #3528: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to develop and utilize Benchmarks.

30.22.1.   Contractor Approach: The Contractor shall provide a system that allows users to develop and utilize Benchmarks. Several kinds of benchmarks shall be available to users in the BIDM, such as static, dynamic and MarketScan.

30.22.1.1.   Static benchmarks are drawn from external sources, such as from the Contractor's MarketScan data, and enable users to compare Department data to external data. MarketScan is the national proprietary research database that Contractor maintains for studying healthcare experience across the commercial and Medicaid markets. Static benchmarks

typically reference normal performance, but can also reference examples of best achievable performance, indicators of unacceptable performance, or targets and standards for desired performance. Static benchmarks cover a set period of time and typically are updated annually by Contractor. Static benchmarks are available for some but not all measures.

30.22.1.2. Dynamic benchmarks are drawn from the Department's database and are used for comparing segments of internal populations to each other, such as one program to another or one provider to other providers of the same specialty, or comparing current performance to a baseline or prior period.

30.22.1.3. The Contractor shall make its MarketScan benchmarks, including Colorado-specific benchmarks, available to the Department so long as the Department contributes its own non-identifiable data. The Department accepts the terms of Contractor's Data Contribution and Use Agreement (DCUA), included as Exhibit I for the Data Contribution and Use Agreement.

30.22.2. Requirement Stage: BIDM Implementation Contract Stage III

30.23. Reference #3529: The Contractor shall provide System Tools that allow authorized BIDM users the ability to view the results of filtered searches based on multiple or single criteria, the capability to search on multiple criteria at the same time, and the ability to perform secondary and tertiary searches based on the primary and subsequent search results.

30.23.1. Contractor Approach: The Contractor shall provide tools to meet this requirement. These tools shall allow users to search for entries using single or multiple criteria, the name or description of which match the string entered in the search criteria—or users shall be able to search an index of entries created by the system administrator using the full text and all fields option.

30.23.1.1. The following options shall be available:

30.23.1.1.1. Full text and all fields.

30.23.1.1.2. Name field.

30.23.1.1.3. Description field.

30.23.1.1.4. Name or description field.

30.23.1.2. The administrator shall be able to restrict searching for entries by making only the Full text and all fields option available. Full text and all fields search shall be able to be restricted by enabling/disabling the Execute Indexed Search capability, allowing a basic indexed search (disabled) or an enhanced index search (enabled). Users shall be able to search for entries whose name, description, or both match the string entered in the search criteria.

30.23.2. Requirement Stage: BIDM Implementation Contract Stage III

30.24. Reference #3530: The Contractor shall provide System Tools with the ability for authorized BIDM users to conduct iterative analysis, such as the ability to create new analytics and query results based on results of prior analytics and queries.

30.24.1. Contractor Approach: The Contractor shall deliver tools that provide users with the flexibility to pursue iterative, ad hoc analyses.

30.24.2. Requirement Stage: BIDM Implementation Contract Stage III

30.25. Reference #3531: The BIDM shall provide equal response time to an authorized BIDM user performing analysis regardless of the System Tool used to access the data.

30.25.1. Contractor Approach: The Contractor shall ensure that identical queries will perform equally regardless of which system tool is used to access the data.

30.25.2. Requirement Stage: BIDM Implementation Contract Stage II

30.26. Reference #3532: The Contractor shall provide a Business Intelligence Tool with the ability for authorized BIDM users to develop analysis, query, and reporting using a GUI that provides a visual of the analysis, query, and reporting is constructed and executed.

30.26.1. Contractor Approach: The Contractor shall provide tools that have visualization options that can be combined to create interactive reports for maximum visual impact, including score carding and dashboards. These tools shall provide a visual analysis of the query and/or report as it is being constructed allowing users to view a sample of the output format before submitting.

30.26.2. Requirement Stage: BIDM Implementation Contract Stage III

30.27. Reference #3533: The Contractor shall provide the software and licensing for a Business Intelligence Tool that is Configurable and Customizable, which can be modified to meet the requirements of this Contract.

30.27.1. Contractor Approach: The Contractor shall provide software and licensing for Cognos Business Intelligence tools and other tools, each of which has its own user and administrator configuration and customization options as described in Exhibit E, Section 1.1.1.3.

30.27.2. Requirement Stage: BIDM Implementation Contract Stage III

30.28. Reference #3534: The Contractor shall provide a Business Intelligence Tool that allows authorized BIDM users to mine structured data, such as classification, estimation, prediction, time series analysis, and market basket analysis.

30.28.1. Contractor Approach: The Contractor shall provide a tool, such as the SAS Enterprise Miner tool, to mine structured data.

30.28.2. Requirement Stage: BIDM Implementation Contract Stage III

30.29. Reference #3535: The Contractor shall provide Business Intelligence Tool that allows authorized BIDM users to develop and conduct basic statistical analysis, such as, averages, standard deviations, confidence intervals, correlations, aggregations and summary statistics. SAS Analytics supplements the statistical functions in the Cognos BI Tool with extensive statistical analysis capabilities.

30.29.1. Contractor Approach: The Contractor shall provide tools, such as the Cognos Report Studio tool, that includes standard functionality for basic statistical analysis. This tool shall provide these capabilities with built-in summaries and functions. This tool also shall be able to call any standard or custom functions defined in the database, included but not limited to the following summary functions: aggregate, average, count, maximum, median, minimum, moving-average, percentage, percentile, quantile, quartile, rank, standard-deviation, total, and variance. Additionally the BIDM shall allow power users to conduct more advanced analysis.

30.29.2. Requirement Stage: BIDM Implementation Contract Stage III

30.30. Reference #3536: The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to develop and produce reports.

30.30.1. Contractor Approach: The Contractor shall provide multiple tools, such as Cognos Query Studio or Cognos Report Studio, that allow users the ability to develop and produce reports.

30.30.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.31.   Reference #3537:   The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to develop prompt-based reports for use by other authorized BIDM users.

30.31.1.   Contractor Approach: The Contractor shall provide tools, such as the Cognos Business Intelligence tools, that enable power users to develop prompt-based reports for use by other authorized users. Parameterized reports shall give users who frequently look at the same type of data a simple way to obtain an ad hoc report, even on detail-level data, with little effort.

30.31.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.32.   Reference #3538: The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to drill up, drill down, and drill across data associated with reports.

30.32.1.   Contractor Approach: The Contractor shall provide users the ability to create a drill-through path in a source report in its Business Intelligence Tool, or use drill-through definitions in the tool. A drill-through path is the definition of the path that is taken when moving from one report to another, including how the data values are passed between the reports. The path taken from one report to another can be up, down or across, as the user defines, to make the subsequent reports support the analysis.

30.32.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.33.   Reference #3539: The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to develop and produce standard Dashboards and Dashboards that can be Configured at the authorized BIDM user level.

30.33.1.   Contractor Approach: The Contractor shall provide tools, such as the Cognos Business Intelligence tools, that allow authorized users the ability to develop standard dashboards and interactive dashboards. Authorized users shall be able to create dashboard reports that use maps and graphs, such as gauges, horizontal progress charts, exception highlighting, and combination charts, to present data in different forms, including interactive objects that individual users can use to show data views the way they prefer.

30.33.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.34.   Reference #3540: The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to develop and produce scorecards.

30.34.1.   Contractor Approach: The Contractor shall provide tools, such as the Cognos Business Intelligence tools, that allow authorized users the ability to develop customized score-carding environment to monitor and analyze metrics.

30.34.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.35.   Reference #3541: The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to assemble and analyze multiple data sources on authorized BIDM users' machines with data in the BIDM in a single view, such as a query or report.

30.35.1.   Contractor Approach: The Contractor shall deliver an integrated BIDM Data Warehouse that assembles data from multiple sources in a way that allows users to analyze the data in a single view such as in a single report. Users shall also be able to query across the Data Warehouse as well as authorized BIDM user's machines.

30.35.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.36.   Reference #3542: The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to develop and report on ad hoc analysis.

30.36.1.   Contractor Approach: The Contractor shall provide multiple tools to allow authorized users to conduct ad hoc analysis. These tools shall include but are not limited to the Advantage Suite tools and the Cognos Business Intelligence tools.

30.36.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.37.   Reference #3543: The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to query, analyze, and report on multi-dimensional data, such as OLAP or cubes.

30.37.1.   Contractor Approach: The Contractor shall provide subject area multi-dimensional data marts as business needs dictate during requirements gathering. As use cases dictate, data marts shall be made accessible to authorized users through a variety of toolsets, such as Cognos Business Intelligence, SAS and ESRI.

30.37.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.38.   Reference #3544: The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to slice, dice, and rollup the results of queries and analysis.

30.38.1.   Contractor Approach: The Contractor shall provide tools, such as the Cognos Business Intelligence tools, to enable authorized users to slice, dice, and roll up or summarize the results of queries and analysis by familiar parameters such as eligibility category, region, year, or other grouping. While the report or dashboard fields remain the same, the information contained shall be refined by the parameter.

30.38.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.39.   Reference #3545: The Contractor shall provide a Business Intelligence Tool that provides OLAP pivoting functionality that authorized BIDM users can access when analyzing and reporting on multi-dimensional data.

30.39.1.   Contractor Approach: The Contractor shall provide tools, such as the Cognos Business Intelligence tools, that support advanced formatting and pivots; users shall be able to design ad hoc analyses and reports using OLAP pivoting functionality when reporting on multi-dimensional data. Users shall be able to pivot data in crosstab and chart formats.

30.39.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.40.   Reference #3546: The Contractor shall provide a Business Intelligence Tool with exception reporting functionality that provides the ability for authorized BIDM users to define threshold points and set associated parameters.

30.40.1.   Contractor Approach: The Contractor shall provide a tool, such as the Cognos Event Studio tool, that supports rules-based monitoring through automatic alerts. Users shall be able to set up alerts to automatically notify the analyst when pre-set exception thresholds are exceeded. The user shall be able to define the conditions for an alert, such as changes in an eligibility trend that exceeds a given threshold.

30.40.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.41. Reference #3547: The Contractor shall provide a Business Intelligence Tool that provides authorized BIDM users the ability to configure and send Alerts.

30.41.1. Contractor Approach: The Contractor shall provide a tool, such as the Cognos Event Studio tool, that supports rules-based monitoring through automatic alerts. Users shall be able to set up alerts to automatically notify the analyst when pre-set exception thresholds are exceeded. The user shall be able to define the conditions for an alert, such as changes in an eligibility trend that exceeds a given threshold.

30.41.2. Requirement Stage: BIDM Implementation Contract Stage III

30.42. Reference #3548: The Contractor shall provide the ability to identify, query, and report on cases requiring utilization review and case management activities based on criteria defined by the Department.

30.42.1. Contractor Approach: The Contractor shall provide a system, such as the Advantage Suite system, to identify, query, and report on cases requiring utilization review and case management activities based on criteria defined by the Department. The system shall provide flexible ranking and other statistical analyses, along with clinically based evaluations using a variety of built-in performance measures that can be selected by the user. Other functions available to rank providers and members shall include basic sorting, external norms, internal norms, frequency distributions, and standard deviation.

30.42.2. Requirement Stage: BIDM Implementation Contract Stage III

30.43. Reference #3549: The Contractor shall provide the ability to analyze data and generate EPSDT reports based on periodicity schedules, such as the schedule provided by the American Academy of Pediatrics.

30.43.1. Contractor Approach: The Contractor shall provide tools, such as the Cognos Business Intelligence tool suite and the Advantage Suite system, to produce the federally required reports for EPSDT that adhere to the standards for submission of the CMS-416 report. To help the Department demonstrate the best possible EPSDT performance, if necessary the Contractor shall design the BIDM solution to include a history of EPSDT events, so that the Department can monitor appropriate receipt of covered preventive, screening, diagnostic, and treatment services by children over time and across programs.

30.43.2. Requirement Stage: BIDM Implementation Contract Stage III

30.44. Reference #3550: The Contractor shall provide the ability to export BIDM data and query results directly from System Tools into various formats including Word, Excel, HTML, Access database, SAS, GUI, XML, API, text, CSV, delimited text, PDF, and JPEG.

30.44.1. Contractor Approach: The Contractor shall fulfill this requirement using the capabilities of various BIDM System tools as indicated in the table shown in Section 30.21.2.1 above.

30.44.2. Requirement Stage: BIDM Implementation Contract Stage III

30.45. Reference #3551: The Contractor shall provide the ability to export BIDM reporting into various formats, including, but not limited to, Excel, Word, text, CSV and PDF).

30.45.1. Contractor Approach: The Contractor shall fulfill this requirement using the capabilities of various BIDM System tools as indicated in the table shown in Section 30.21.2.1 above.

30.45.2. Requirement Stage: BIDM Implementation Contract Stage III

30.46.   Reference #3552: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to utilize all data, queries, analysis, and reporting in the BIDM to produce Geospatial Analytics and maps.

30.46.1.   Contractor Approach: The Contractor shall provide a tool, such as the COTS solution from Esri ArcGIS, which enables users to utilize data in the BIDM to produce maps and geospatial analytics using geographic data. Geospatial analytics and mapping shall be available to use with any data or report to which a geographical analysis is relevant.

30.46.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.47.   Reference #3553: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to utilize multiple layers of geospatial data within a given geospatial analysis or map.

30.47.1.   Contractor Approach: The Contractor provide a tool, such as the Esri ArcGIS tool, that uses a layer-based environment to help users design, assemble, and organize geospatial data. Users shall be able to compile different feature categories in separate layers to include a variety of features in maps and analysis while maintaining the integrity of the data. The layers can represent a range of datasets, including demographics and service boundaries.

30.47.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.48.   Reference #3554: The Contractor shall geocode all location data and addresses in the BIDM.

30.48.1.   Contractor Approach: The Contractor shall utilize functionality, such as the Address Doctor functionality included in the Informatica Tool Suite, to geocode all addresses and location data and store the information in the BIDM Data Warehouse.

30.48.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.49.   Reference #3555: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to capture and utilize pre-existing 'map layers' with address data and graphics from external sources, such as data from CDPHE and the Colorado Office of Demography.

30.49.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that can use geographic data stored in the BIDM Data Warehouse in a number of formats and data sources. Data shall be able to be geocoded from formats such as TXT files and users can ingest, visualize, and analyze already spatially enabled external data in industry standard formats including shapefiles, geodatabases, and OGC web services.

30.49.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.50.   Reference #3556: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to export maps and geospatial analytics.

30.50.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri Maps for IBM Cognos component, which allows authorized users to integrate mapping from other tools and location analytic capabilities directly inside the BIDM's reports and dashboards. Maps shall be able to be exported in vector export formats such as EMF, EPS, AI, PDF, and SVG, as well as raster formats such as BMP, JPEG, PNG, TIFF, and GIF. The BIDM tools shall also support the export of reports for easy distribution in PDF, HTML, TIFF, XLS, RTF, and TXT formats. Maps exported to PDF format shall be able to be restricted to authorized viewers by password-protecting the file.

30.50.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.51.   Reference #3557: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to import and use geospatial data including maps, map layers, and longitude and latitude coordinates.

30.51.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, which supports the ability for users to import maps and geospatial data from a variety of formats including map services, feature services, map layers, shapefiles. When externally available geospatial information is needed for analysis, Contractor shall capture the data and store it for users to access, manipulate, and analyze. If adding the data to the BIDM data stores is the appropriate solution, Contractor shall work through the Change Management Process to complete the request. Sandbox users shall be able to import data into their Sandbox regions without the need to use the Change Management Process.

30.51.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.52.   Reference #3558: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to import and utilize for mapping and geospatial analytics publically available free demographic and lifestyle maps and data.

30.52.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, which allows users to import and modify publically available maps and data from a number of sources, including demographic and lifestyle data. When publically available geospatial information is needed for analysis, Contractor shall capture the data and store it for users to access, manipulate, and analyze. If adding the data to the BIDM data stores is the appropriate solution, Contractor shall work through the Change Management Process to complete the request.

30.52.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.53.   Reference #3559: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to access, store and utilize all publically available geospatial information as requested by the Department.

30.53.1.   Contractor Approach: The Contractor shall provide the BIDM Data Warehouse and tools, such as the Esri ArcGIS tool, which together allow users to access, store and utilize data from the Data Warehouse and from publically available geospatial information sources as may be requested by the Department. When publically available geospatial information is needed for analysis, the Contractor shall capture the data and store it for users to access, manipulate, and analyze. If adding the data to the BIDM data stores is the appropriate solution, Contractor shall work through the Change Management Process to complete the request.

30.53.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.54.   Reference #3560: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to produce maps with both cartographic representation and global satellite imagery.

30.54.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, which gives users the ability to produce maps with cartographic representation, as well as leverage base maps provided with the tool to produce maps with street view, satellite imagery, or topographic representations.

30.54.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.55.   Reference #3561: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to produce dashboards that contain charts, graphs, summarized data and maps.

30.55.1. Contractor Approach: Contractor shall provide tools, such as the Cognos Business Intelligence and Esri ArcGIS tools, which allow users to produce dashboards that contain charts, graphs, data, and maps.

30.55.2. Requirement Stage: BIDM Implementation Contract Stage III

30.56. Reference #3562: The Contractor shall provide the ability for authorized BIDM users to add or change geospatial data in the BIDM to improve accuracy and currency of geospatial data.

30.56.1. Contractor Approach: The Contractor shall define the authorized system users who will be able to add or change geospatial data in the BIDM Data Warehouse, based on information from and as approved by the Department. Contractor shall work with the Department to resolve these issues when they arise. The provided tools, such as the Esri ArcGIS tool, shall allow users to create and edit feature attributes and geometries of data stored in shapefiles and geo-databases to improve the accuracy and currency of geospatial data.

30.56.2. Requirement Stage: BIDM Implementation Contract Stage III

30.57. Reference #3563: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to geocode and determine the longitude and latitude for all addresses in the BIDM in a secure environment.

30.57.1. All geospatially related data and analytics shall conform to HIPAA and the Department's security requirements.

30.57.2. Contractor Approach: The Contractor shall use functionality, such as the Address Doctor functionality included in the Informatica Tool Suite, to geocode all addresses and location data and store the geocoded information in the BIDM Data Warehouse. In addition, Contractor shall deliver a tool, such as the Esri ArcGIS tool, that contains geocoding functionality for use if an authorized user chooses to include externally stored data in their geospatial analysis. These tools shall enable users to translate location data such as geographic coordinates, addresses, and place names on the fly into features for maps. During design activities, the Contractor shall validate to the Department that its geocoding methodologies conform to HIPAA and Department security requirements.

30.57.3. Requirement Stage: BIDM Implementation Contract Stage III

30.58. Reference #3564: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to merge geospatial datasets.

30.58.1. Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that allows users to combine multiple input datasets of the same data type into a single output dataset. The tool shall provide a merge feature that allows users to combine two or more datasets to create a new output dataset, and an append feature that adds input datasets to an existing target dataset.

30.58.2. Requirement Stage: BIDM Implementation Contract Stage III

30.59. Reference #3565: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to create and display legends and documentation on maps.

30.59.1. Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that enables users to include map surrounds such as customizable legends, scale indicators, and north arrows.

30.59.2. Requirement Stage: BIDM Implementation Contract Stage III

30.60.   Reference #3566: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to produce geospatial analysis that represents change over a defined time period.

30.60.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that allows users to include notes within the surrounds of the map display as well as labels and annotation within the map. Users shall also be able to store temporal data as feature attributes of a map and view the information with a time slider, scrolling forward and backward in time to help report users visualize and assess changes in the data as the changes took place in history.

30.60.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.61.   Reference #3567: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to display two maps in a split window for comparison purposes.

30.61.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that includes templates to help users configure comparison views to display two or more maps side-by-side in a split window or organize multiple maps in tabbed views.

30.61.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.62.   Reference #3568: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to export maps and spatial analysis with password protection so that only the targeted recipient can view the map.

30.62.1.   Contractor Approach: The Contractor shall deliver a tool, such as the Esri ArcGIS tool, that allows users to password protect maps exported to PDF format so that viewing is restricted to the targeted recipient.

30.62.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.63.   Reference #3569: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to view multiple map layers and to remove layers as needed.

30.63.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that allows users to combine multiple map layers in a single view with user configuration options to change the display order of the layers to improve data visibility, toggle each layer on and off, or remove the layer completely.

30.63.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.64.   Reference #3570: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to restrict the access to data underlying a map or other geospatial analytical product.

30.64.1.   Contractor Approach: The Contractor shall deliver a tool, such as the Esri ArcGIS tool, that can be configured to restrict access to geospatial data at a number of levels. Contractor shall design the BIDM data warehouse to ensure that data are secured according to HIPAA and the Department's policies and access is by authorized users only. This tool shall provide role-based security settings, with which administrators will give users access only to maps and applications that contain data that is appropriate for their use. Role-based security settings also shall be able to be used to filter data to provide more fine-grain control over access. The Contractor shall integrate this tool into the security established for the BIDM.

30.64.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.65.   Reference #3571: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to perform statistical analysis on geospatial data.

30.65.1.   Contractor Approach: The Contractor shall provide tools, such as the Esri ArcGIS Spatial Statistics toolbox, which helps users analyze distributions, patterns, and relationships in the context of geography. Spatial statistics shall specifically focus on location-based factors such as proximity. The tools provided shall allow users to evaluate trends in spatial distributions, identify statistically significant spatial clusters or outliers, assess overall patterns of clustering or dispersion, group features based on attribute similarities, identify an appropriate scale of analysis, and explore spatial relationships.

30.65.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.66.   Reference #3572: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to determine the closest location and determine the shortest route of a Medicaid service provider, as defined by the Department, and produce travel directions as well as distance.

30.66.1.   Contractor Approach: The Contractor shall provide tools, such as the Esri ArcGIS tools, that enables users to determine the travel distance between two or more specified locations using a travel routing engine. Users shall have the ability to produce detailed auto-generated driving directions, as well as determine which of multiple facilities provides service to the largest population based on drive time and/or distance of the population to the facility.

30.66.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.67.   Reference #3573: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to define service areas based on travel time or distance as outlined by the Department.

30.67.1.   Contractor Approach: The Contractor shall provide a tool, such as Esri ArcGIS, to enable users to set up maps displaying service areas by different resolution levels including county, city, ZIP code, mileage, both "as the crow flies" and by driving distance, census tract, and address or coordinate levels. Users shall also be able to define custom regions as designated by the Department and zoom to specific layers and map extents.

30.67.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.68.   Reference #3574: The Contractor shall provide a System Tool that provides authorized BIDM users the ability that has the ability to produce HIPAA compliant maps and Geospatial Analytics.

30.68.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that allows authorized users to analyze and visually display aggregated data in a HIPAA-compliant map for distribution to other users who may not have access to PHI.

30.68.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.69.   Reference #3575: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to produce maps with a "search" prompt in which the customer can type in an address or place name and be given the most likely matches which are then shown on the map.

30.69.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool with the ArcGIS REST API feature, to include search capabilities into maps. This tool shall allow map consumers to type in an address or place name and the map will return the most likely match and display it on the map.

30.69.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.70. Reference #3576: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to produce custom maps in which the layers can contain customized regions, labeling, markings, colors and legends.

30.70.1. Contractor Approach: The Contractor shall provide a tool, such as the Esri Arc GIS tool, that helps users produce maps with customized regions, unique labeling rules, user-created symbols and styles, defined color-coding for different layers, and configurable legends.

30.70.2. Requirement Stage: BIDM Implementation Contract Stage III

30.71. Reference #3577: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to build online maps, including 3-D maps, that are interactive and allow click through to smaller scale areas, provide directions or to view the underlying data.

30.71.1. Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS, that enables users to publish web maps for display in web and mobile applications, embed in web pages, add to other business systems such as business intelligence reports, and share through an online feature. Contractor shall provide capability in the tool, such as the ArcGIS 3D Analyst extension, that allows authorized users to create 3D content, including 3D landscape and city models. Users shall be able to interact with these maps through pan and zoom functions, generate driving directions, view underlying data through multimedia pop-ups, and more.

30.71.2. Requirement Stage: BIDM Implementation Contract Stage III

30.72. Reference #3578: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to securely export maps and geospatial analysis to mobile devices.

30.72.1. Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS, that enables users to securely publish web maps for display in web and mobile applications. This tool shall support smart phone and tablet mobile devices running the Android, iOS, and Windows operating systems.

30.72.2. Requirement Stage: BIDM Implementation Contract Stage III

30.73. Reference #3579: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to securely share maps and geospatial analytics between authorized BIDM users.

30.73.1. Contractor Approach: The Contractor shall deliver a tool, such as the Esri ArcGIS tool, that provides role-based security settings, with which administrators shall be able to give users access only to maps and applications that contain data that is appropriate for their use. Role-based security settings also shall be able to be used to filter data to provide more fine-grain control over access. Contractor shall integrate this tool into the security established for the BIDM.

30.73.2. Requirement Stage: BIDM Implementation Contract Stage III

30.74. Reference #3580: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to add pop-ups to maps to highlight information and include charts and graphs, photos and other information as determined by the Department.

30.74.1. Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that allows users to create maps that incorporate charts, graphs, tables, images, web page content, and other information through informational pop-ups.

30.74.2. Requirement Stage: BIDM Implementation Contract Stage III

30.75. Reference #3581: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to integrate photos into maps, either as an embedded image or as a popup.

30.75.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that includes an easy-to-use interface that helps users select the fields to be displayed, include attachments such as images or documents, create charts and graphs based on the data, and configure formatting options.

30.75.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.76.   Reference #3582: THIS REQUIREMENT INTENTIONALLY DELETED

30.77.   Reference #3583: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to optimize maps for the device or system on which they will be viewed.

30.77.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, to allow authorized users to appropriately view maps on the device or system of their choosing. Maps produced with tool shall be device agnostic and shall be able to be accessed anywhere—including desktops, web browsers, smart phones, and tablets—without the need for administrators or users to optimize them for the destination platform. The tool shall support smart phone and tablet mobile devices running the Android, iOS, and Windows operating systems.

30.77.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.78.   Reference #3584: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to perform Geospatial Analytics and mapping.

30.78.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that enables authorized users to perform Geospatial Analytics and mapping.

30.78.1.1.   This shall include, but is not limited to, all of the following supported analytics:

30.78.1.1.1.   Understanding where and when things change.

30.78.1.1.2.   Understanding where the variations and patterns in values are (comparative maps.

30.78.1.1.3.   Understanding where things are (location maps).

30.78.1.1.4.   Determining and summarizing what is within an area(s).

30.78.1.1.5.   Determining what is closest.

30.78.1.1.6.   Finding the best route or path along a network.

30.78.1.1.7.   Finding the best allocation of resources to geographic areas.

30.78.1.1.8.   Finding the best locations that satisfy a set of criteria.

30.78.1.1.9.   Predicting how and where objects spatially interact (attraction and decay).

30.78.1.1.10.   Given a success case, identifying, ranking, and predicting similar locations.

30.78.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.79.   Reference #3585: The Contractor shall provide a System Tool that provides authorized BIDM users the ability to create maps using data at different resolution levels including at least; county, city, zip code, mileage by road and direct mileage, census tract, longitude and latitude of an individual address or any region defined by the Department.

30.79.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that allows authorized users to set up maps displaying data at different resolution levels including

county, city, ZIP code, mileage, both "as the crow flies" and by driving distance, census tract, and address or coordinate levels.

30.79.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.80.   Reference #3586: The Contractor shall update geocoding references data on a schedule agreed to in writing between the Contractor and the Department or as contained in the appropriate plan under this Contract.

30.80.1.   Contractor Approach: The Contractor shall utilize functionality, such as the Address Doctor functionality included in the Informatica Tool Suite, to geocode all addresses and location data and store the information in the BIDM Data Warehouse. The Contractor shall update this information based on a schedule determined in conjunction with the Department and documented in the System Operational Procedures Manual.

30.80.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.81.   Reference #3587: The Contractor shall provide the ability for authorized BIDM users to calculate the travel distance between any two given locations, such as a client's home address and a provider's location.

30.81.1.   This shall include both the distance by road and direct distance.

30.81.2.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that enables users to determine the travel distance between two or more specified locations using a state-of-the-art routing engine. Distances shall be able to be defined both "as the crow flies" distances and actual driving distances.

30.81.3.   Requirement Stage: BIDM Implementation Contract Stage III

30.82.   Reference #3588: The Contractor shall provide the ability to utilize multiple layers within a given geospatial analysis or map.

30.82.1.   Contractor Approach: The Contractor shall provide a tool, such as the Esri ArcGIS tool, that allows users to combine multiple map layers in a single view with user configuration options to change the display order of the layers to improve data visibility, toggle each layer on and off, or remove the layer completely.

30.82.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.83.   Reference #3589: The Contractor shall provide rule based Data Suppression Tool to generate user-defined, HIPAA-compliant reports for external release.

30.83.1.   The Contractor shall allow authorized BIDM users to modify/update data suppression criteria to meet Department defined HIPAA and Safe Harbor criteria.

30.83.2.   Contractor Approach: The Contractor shall provide tools, such as the Informatica PowerCenter data-masking tools, that protect sensitive, private information by masking it in flight to produce de-identified but realistic-looking data. These tools shall provide multiple data-masking techniques and algorithms to ensure randomization while maintaining the original nature of the data and preserving referential integrity. It also includes specialized, built-in content and rules for common sensitive fields, such as name, address, and Social Security Number. The Contractor shall provide access for authorized system users to this data-masking functionality within the BIDM and give them the ability to modify/update data suppression criteria to meet Department-defined HIPAA and Safe Harbor criteria.

30.83.2.1. The Contractor shall provide tools, such as Cognos and SAS, that can suppress, such as by blinding or masking, aggregated data based on Department defined HIPAA and Safe Harbor criteria. The Contractor shall review and manually blind aggregated data and reports that are to be delivered to external parties, such as non-HIPAA covered entities, if the tools provided cannot sufficiently suppress the data to meet Department-defined HIPAA and Safe Harbor criteria. Data suppression criteria and manual blinding protocols to be utilized shall be included in the System Operational Procedures Plan.

30.83.3. Requirement Stage: BIDM Implementation Contract Stage II

30.84. Reference #3590: The Contractor shall provide functionality to retain a historical record of all samples created within the BIDM, including sample parameters, date created, authorized BIDM user who created the sample, and records included in the sample.

30.84.1. Contractor Approach: The Contractor shall provide functionality to retain a historical record of all samples created within the BIDM, including sample parameters, date created, authorized BIDM user who created the sample, and records included in the sample.

30.84.2. Requirement Stage: BIDM Implementation Contract Stage II

30.85. Reference #3591: The Contractor shall provide the ability for mail merge functionality out of the BIDM for both physical and e-mail addresses to create letters and forms by authorized BIDM users, such as the ability to merge data from the BIDM into Microsoft Word letters.

30.85.1. This requirements only applies to the capability to merge data. The Contractor will not be responsible for the actual mailings.

30.85.2. Contractor Approach: The Contractor shall provide tools, such as the Cognos Business Intelligence tools, to enable authorized users to define and run queries on BIDM data stores to extract data for import into a separate mail merge program for use in form letters or other mailings. These tools shall also support the creation of form letters and content for distribution should the Department authorize it.

30.85.3. Requirement Stage: BIDM Implementation Contract Stage III

30.86. Reference #3592: The Contractor shall provide the capability for authorized BIDM users to identify potential fraud, waste, and abuse by using a Predictive Analytics Tool that identifies provider and/or claims that exhibit high-risk characteristics and other risk factors to support the claim/encounter review process.

30.86.1. The Contractor shall make the functionality to create and deploy predictive analytics and models available to both the Contractor and authorized BIDM users.

30.86.2. Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, and SAS Analytics. These tools shall deliver capabilities to identify potential fraud, waste, and abuse. The tools shall identify and score activities as suspicious by using a fraud-scoring engine that employs a combination of analytic techniques to determine high risk of fraudulent activity, by providers and clients.

30.86.3. Requirement Stage: BIDM Implementation Contract Stage III

30.87. Reference #3593: The Contractor shall provide a Predictive Analytics Tool that is able to perform relational analytics between data within the BIDM.

30.87.1.   Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, and SAS Analytics. These tools shall enable users to perform relational analytics between data in the BIDM.

30.87.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.88.   Reference #3594: The Contractor shall provide a Predictive Analytics Tool that assigns risk scores to providers and clients that identifies the potential of that provider or client to have aberrant behavior.

30.88.1.   Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, and SAS Analytics. The fraud detection components of these systems shall have the ability to run algorithms and predictive models to identify claims, providers, beneficiaries, that are fraudulent or likely committing fraud, waste, or abuse. The resulting scores shall then be able to be used by the Department to prioritize the order in which suspicious transactions should be investigated.

30.88.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.89.   Reference #3595: The Contractor shall provide a Predictive Analytics Tool that identifies aberrant behavior in claims/encounters, claim/encounter billing patterns, provider types, providers and clients.

30.89.1.   Contractor Approach: The Contractor shall provide a Predictive Analytics Tool that identifies aberrant behavior in claims/encounters, claim/encounter billing patterns, provider types, providers and clients.

30.89.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.90.   Reference #3596: The Contractor shall provide a Predictive Analytics Tool that can integrate structured and unstructured external data sources with the BIDM data sources to enhance the ability to identify aberrant behavior in claims/encounters, claim/encounter billing patterns, provider types, providers, and clients.

30.90.1.   Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, or SAS Analytics. The systems shall be able to make use of data from the BIDM Data Warehouse, which can integrate relevant data from different systems, external data sources, unstructured text and other disparate data sources, as well as business rules for fraud, waste, and abuse schemes from existing rules engines.

30.90.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.91.   Reference #3597: The Contractor shall provide a Predictive Analytics Tool that can be modified to improve the results when aberrant behavior is identified and misidentified by previous results.

30.91.1.   Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, and SAS Analytics. Contractor shall store and maintain the results of cases and actionable referrals in a fraud repository as known outcomes. The predictive models built by analysts shall access this repository of known outcomes in the application of supervised analytic approaches. The Department and Contractor shall develop a feedback process that allows the solution to be continually improved, where users can modify analytics on the system and can change system parameters to take into account false positive results and remove them where practicable.

30.91.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.92. Reference #3598: The Contractor shall provide a Predictive Analytics Tool that can identify deficiencies that may result in a high risk of fraud, waste, abuse and overpayments based on the structure of the Health Benefit Plans and allowable billing rules and edits.

30.92.1. Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, and SAS Analytics. These tools include rules from the Contractor's own library of rules for detecting deficiencies in benefit plan limits and billing rules and edits that can pose a high risk for fraud, abuse, and overpayment.

30.92.2. Requirement Stage: BIDM Implementation Contract Stage III

30.93. Reference #3599: The Contractor shall provide a Predictive Analytics Tool that can associate relationships, including social networks, between clients, providers and other data in the BIDM that can identify potential relationships that may result in aberrant behavior.

30.93.1. Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, SAS Analytics and IBM i2 Analyst's Notebook, which provide visual analysis tools that are designed to help users discover key individuals, connections, relationships, events, patterns, and trends that may otherwise have been missed.

30.93.2. Requirement Stage: BIDM Implementation Contract Stage III

30.94. Reference #3600: The Contractor shall provide a Predictive Analytics Tool that can provide a visual representation of relationship between clients, providers and other data in the BIDM that can identify potential relationships that may result in aberrant behavior.

30.94.1. Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, SAS Analytics and IBM i2 Information Exchange Visualizer, which enable the visualization of data sources using browser-based image technology. The web-based interface shall enable users to visualize data as real-world objects pictorially, helping them discover relationships, trends, and connections in the data that may indicate aberrant behavior.

30.94.2. Requirement Stage: BIDM Implementation Contract Stage III

30.95. Reference #3601: The Contractor shall provide a Predictive Analytics Tool that reduces false-positive results based on previous results from the Predictive Analytics Tools.

30.95.1. Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, and SAS Analytics. The Contractor shall store and maintain the results of cases and actionable referrals in a fraud repository as known outcomes. The predictive models built by analysts shall access this repository of known outcomes in the application of supervised analytic approaches. The Department and Contractor shall develop a feedback process that allows the BIDM to be continually improved using investigative results and further improve precision by reducing false-positive alerts, and raising more alerts on entities and networks that have similar attributes to confirmed fraud cases.

30.95.2. Requirement Stage: BIDM Implementation Contract Stage III

30.96. Reference #3602: The Contractor shall provide a Predictive Analytics Tool that can associate relationships, including those identified via social networks, between clients, providers and other data in the BIDM that can identify potential relationships that may result in aberrant behavior.

30.96.1. Contractor Approach: The Contractor shall deliver Predictive Analytics as a set of systems, including systems such as Cognos, Advantage Suite, SAS Analytics and i2 Analyst's Notebook, which has Social Network Analysis capabilities that deliver increased comprehension of social relationships and structures within networks of interest.

30.96.2. Requirement Stage: BIDM Implementation Contract Stage III

30.97. Reference #3603: The Contractor shall provide analytical tools that allow an authorized BIDM user to model risk sharing, risk corridors, and stop-loss arrangements.

30.97.1. Contractor Approach: The Contractor shall provide systems, such as the Advantage Suite system and SAS Analytics, for modeling risk sharing, risk corridors, and stop-loss arrangements. These systems shall include a historical database that enables users to create the parameters for analysis, such as complex claim and population stratifications.

30.97.2. Requirement Stage: BIDM Implementation Contract Stage III

30.98. Reference #3604: The Contractor shall provide necessary COTS software and licenses to calculate Risk Scores.

30.98.1. Contractor Approach: The Contractor shall provide COTS software, such as the Diagnostic Cost Group (DCG) models from Verisk Health, which calculate risk scores by classifying patients using demographic and diagnostic information. The models shall use diagnosis codes from a specific time period to describe the expense of individuals in that time period and predict the cost of their care in a subsequent time period. The DCG risk scores shall be delivered with the BIDM, which applies the risks scores produced by DCGs to help target cases for future medical management and to calculate future cost of the chronically ill population. Contractor shall deliver the DCG All-Encounter model for Medicaid and the DCG Likelihood of Hospitalization model.

30.98.2. Requirement Stage: BIDM Implementation Contract Stage III

30.99. Reference #3605: The Contractor shall provide the ability for authorized BIDM users to generate both automated and manual sampling from within the BIDM for any data, including, but not limited to, sampling frame, sample, and definition of sample parameters. This includes random sampling, stratified sampling, systematic sampling, cluster sampling, and over sampling for all types of data in the BIDM.

30.99.1. Contractor Approach: The Contractor shall provide tools, such as the SAS Analytics tools, to support statistically valid random sampling. Users shall be able to perform random sampling, stratified sampling, systematic sampling, cluster sampling, over sampling, and other sampling techniques.

30.99.2. Requirement Stage: BIDM Implementation Contract Stage III

30.100. Reference #3606: The Contractor shall provide an SQL Tool that provides authorized BIDM users the ability to develop single-platform and cross-platform SQL queries through an easy-to-use drag and drop interface.

30.100.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD, to allow authorized users, typically programmer/developers, to develop single-platform and cross-platform SQL queries for analysis. This tool shall allow users to write sophisticated SQL routines to perform data extracts or conduct data analysis. This tool shall provide a graphical, user configurable, robust development environment in which to create queries, with drag-and-drop features and an abundant catalog of SQL commands.

30.100.2. Requirement Stage: BIDM Implementation Contract Stage I

30.101. Reference #3607: The Contractor shall provide an SQL Tool that provides authorized BIDM users the ability to analyze, query, and report on BIDM data.

30.101.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD, to allow authorized users the ability to analyze, query, and report on BIDM data. Contractor shall install the tool so as to allow a selected number of authorized users direct access to the BIDM data stores down to the most detailed claim-line level and associated metadata.

30.101.2. Requirement Stage: BIDM Implementation Contract Stage I

30.102. Reference #3608: The Contractor shall provide an SQL Tool that provides authorized BIDM users editing and execution functionality, such as, cut, copy, paste, undo, redo, find, find and replace, bookmarks, block indent, print, save file, uppercase/lowercase, keyword highlighting, auto-completion, access to frequently used files, output of query results, editing query-results and committing and rolling-back transactions.

30.102.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD, that gives authorized users editing and execution functionality to cut, paste, and reuse pieces of code, save favorites, and set bookmarks for improved workflow. The tool shall be able to auto-suggest both query syntax and table structures to facilitate development.

30.102.2. Requirement Stage: BIDM Implementation Contract Stage I

30.103. Reference #3609: The Contractor shall provide an SQL Tool that provides authorized BIDM users object browsing functionality, such as, view object descriptions, view object definitions (DDL), create database objects, enable and disable triggers and constraints, recompile valid or invalid objects, and query or edit tables and views.

30.103.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD, that gives SQL developers the ability to browse the various components and structures of the database, if they have the appropriate permissions. Users are able to look at things like tables and columns as well as relational constraints, triggers, and stored procedures. Users shall be able to create queries using Data Manipulation Language (DML), and they can use the tool to create new data structures using Data Definition Language (DDL).

30.103.2. Requirement Stage: BIDM Implementation Contract Stage I

30.104. Reference #3610: The Contractor shall provide an SQL Tool that provides authorized BIDM users debugging functionality, such as, step in, step over, step out, run until exception, breakpoints, view and set variables and view call stack.

30.104.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD, that allows for the creation of breakpoints and debugging capabilities to step through the execution of the code, which facilitates producing accurate code as it is developed, helping to ensure that the developer gets the expected results.

30.104.2. Requirement Stage: BIDM Implementation Contract Stage I

30.105. Reference #3611: The Contractor shall provide an SQL Tool that provides authorized BIDM users the ability to connect to nearly any data source, from traditional relational sources, such as, Oracle, SQL Server, Sybase, DB2, Teradata, Access, and any ODBC-compliant platform, to non-database sources, such as Microsoft Excel, and to non-SQL systems, such as the Business Intelligence Tool.

30.105.1. The Contractor shall provide the ability for authorized BIDM users to run SQL queries against any of these sources.

30.105.2. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. This tool shall have the ability to connect to most relational and non-SQL data sources. Contractor shall install the tool so as to allow a selected number of authorized users direct access to the BIDM data stores down to the most detailed claim-line level and associated metadata.

30.105.3. Requirement Stage: BIDM Implementation Contract Stage I

30.106. Reference #3612: The Contractor shall provide an SQL Tool that provides authorized BIDM users the ability to integrate data through cross-platform SQL queries.

30.106.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD, which allows users with appropriate privileges to use the tool to perform analysis for data sources that can be connected via ODBC or JDBC protocols.

30.106.2. Requirement Stage: BIDM Implementation Contract Stage I

30.107. Reference #3613: The Contractor shall provide an SQL Tool that provides authorized BIDM users the ability to automate and schedule routine tasks.

30.107.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. This tool shall allow users to automate the execution of their code.

30.107.2. Requirement Stage: BIDM Implementation Contract Stage I

30.108. Reference #3614: The Contractor shall provide an SQL Tool that provides authorized BIDM users the ability to develop sophisticated workflows to support advanced projects.

30.108.1. Contractor Approach: The Contractor shall provide a tool, such as Dell/Quest product TOAD. This tool shall provide a workflow feature that allows users to automate their tasks. Users shall be able to create a workflow that includes connecting to their data source(s) and performing a set of tasks, such as execute a script, run a query, and build a report based on query results. The workflow shall then be able to be scheduled to run on a periodic basis, such as daily or weekly.

30.108.2. Requirement Stage: BIDM Implementation Contract Stage I

30.109. Reference #3615: The Contractor shall provide an SQL Tool that provides local data store functionality.

30.109.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. This tool shall use local data storage to support result sets and user defined data.

30.109.2. Requirement Stage: BIDM Implementation Contract Stage I

30.110. Reference #3616: The Contractor shall provide an SQL Tool with a Configurable integrated/interactive development environment (IDE), such as a source code editor, build automation tools and a debugger.

30.110.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. This tool shall provide a graphical, user configurable, robust development environment in which to create queries, with drag-and-drop features and an abundant catalog of SQL commands. The tool shall be able to auto-suggest both query syntax and table structures to facilitate development. Users shall be able to create queries using DML, and they shall be able to create new data structures using DDL. The tool also shall include debugging functionality.

30.110.2. Requirement Stage: BIDM Implementation Contract Stage I

30.111. Reference #3617: The Contractor shall provide an SQL Tool with an advanced analytics library, including, but not limited to, a library of basic analytic functions, mathematical and statistical functions, advanced data mining techniques, multivariate distributions and financial functions, that authorized BIDM users can access via SQL.

30.111.1. Contractor Approach: The Contractor shall provide tools, such as the Dell/Quest product TOAD and SAS. This tool shall have a feature that provides a library of SQL functions and procedures, from basic aggregation to advanced analytics such as forecasting and hypothesis testing.

30.111.2. Requirement Stage: BIDM Implementation Contract Stage I

30.112. Reference #3618: The Contractor shall provide an SQL Tool with data visualization functionality.

30.112.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. This tool shall have data visualization functionality that enables users to compare and visualize the data through several features, such as a Differences Viewer and a Profiler Analysis.

30.112.2. Requirement Stage: BIDM Implementation Contract Stage I

30.113. Reference #3619: The Contractor shall provide an SQL Tool that provides authorized BIDM users the ability to compare and synchronize data between different data sources.

30.113.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. This tool shall have functionality that enables users to compare and visualize the data through several features, such as a Differences Viewer and a Profiler Analysis.

30.113.2. Requirement Stage: BIDM Implementation Contract Stage I

30.114. Reference #3620: The Contractor shall provide an SQL Tool with data cleansing functionality that provides authorized BIDM users the ability to transform and cleanse result sets, such as adding calculations, columns and groupings, and finding duplicates, with a straightforward interface.

30.114.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. This tool shall allow authorized users to add calculations, group data, edit data and perform other functions within the users' permissions in the Sandbox environment.

30.114.2. Requirement Stage: BIDM Implementation Contract Stage I

30.115. Reference #3621: The Contractor shall provide an SQL Tool with entity-relationship (ER) diagramming and data browsing functionality that provides authorized BIDM users the ability to visualize and annotate table relationships, to create relationship templates, view master-detail relationships and browse database tables and objects.

30.115.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. This tool shall allow SQL developers to see the parent-child relationships between the tables, enabling straightforward browsing of the master-detail records that exist within the database. Users shall be able to see relationships among tables, including ER diagrams within the user's schema and the entire Data Warehouse. ER Diagrams shall be viewable and exportable through multiple means, such as ERwin, SQL tools like TOAD and .PDF files. Users shall be able to create queries using DML, and they shall be able to create new data structures using DDL.

30.115.2. Requirement Stage: BIDM Implementation Contract Stage I

30.116. Reference #3622: The Contractor shall provide an SQL Tool that provides authorized BIDM users the ability to include charts, graphs, and other visual representations in data results.

30.116.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. This tool shall provide a graphical, user configurable, development environment with data visualization features.

30.116.2. Requirement Stage: BIDM Implementation Contract Stage I

30.117. Reference #3623: The Contractor shall provide an SQL Tool with import/export wizard functionality that provides authorized BIDM users the ability to load and unload data efficiently.

30.117.1. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD. Using this tool, users shall be able to load and unload data structures within their own schemas in the Sandbox environment. This tool shall provide import/export utilities to facilitate data loads and allows the user to save the specifications for scheduling at a later time.

30.117.2. Requirement Stage: BIDM Implementation Contract Stage I

30.118. Reference #3624: The Contractor shall provide a Statistical Analysis Tool that can be used by authorized BIDM users to query, analyze, and report on all data in the BIDM.

30.118.1. Contractor Approach: The Contractor shall provide tools, such as SAS Analytics tools, and make it possible for SAS users to have access to all data stored in the BIDM for their use in queries, analysis and reporting, depending on their security privileges.

30.118.2. Requirement Stage: BIDM Implementation Contract Stage III

30.119. Reference #3625: The Statistical Analysis Tool shall provide the capacity to read, manage, update, and analyze extremely large datasets, such as several years of claims data, with no degradation in performance.

30.119.1. Contractor Approach: The Contractor shall configure its statistical analysis tools in the BIDM environment to enable authorized users to mine and analyze a wide variety of data volumes with little change in users' performance, whether the data volume is only a single year of claims data or several years.

30.119.2. Requirement Stage: BIDM Implementation Contract Stage III

30.120. Reference #3626: The Statistical Analysis Tool shall provide advanced statistical analysis functionality which provides the ability for authorized BIDM users to conduct sophisticated analysis, such as, actuarially sound rate setting, controlled comparisons, regressions, incurred but not reported (IBNR) calculations, development of statistical models, probability, probabilistic sensitivity analysis, predictive analytics and survey weighting and analysis.

30.120.1. Contractor Approach: The Contractor shall provide systems, such as the Advantage Suite system and SAS Analytics, to meet the requirements for sophisticated analysis.

30.120.1.1. The systems shall allow authorized users to perform IBNR calculations in multiple ways, including the following:

30.120.1.1.1. Delivery of a standard report, the IBNR Claims Turnaround Analysis, that displays payments reported by incurred date (row) against payments reported by paid date (column) to determine payment lag for the two previous rolling years; this report can be used to create claims triangles for claims completion and reserve calculations.

30.120.1.1.2. Inclusion of completion methods in calculating claim-dependent performance measures, which enables users to study cost and use experience based on date of service, in a near-term period, while the system automatically accounts for the fact that not all experience has been reported.

30.120.1.2.   At the user's option, many financial measures, such as Net Pay, PMPM, Inpatient and Acute, shall be able to be applied either 'completed' or not. If completed, data in recent periods shall be automatically inflated so that it approximates the actual number of services rendered and the associated costs. The completion factors shall be calculated by the system based on claim type and other historical trends in the agency's data to ensure that a decreasing rate in near-term experience is not erroneously interpreted as a trend.

30.120.1.3.   The systems shall also provide functionality to perform controlled comparisons, regression analysis, development of predictive models that require advanced statistical techniques such as probability analysis and survey weighting.

30.120.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.121.   Reference #3627: The Statistical Analysis Tool shall have the ability to both generate and read SAS-compatible files.

30.121.1.   The Statistical Analysis Tool shall generate and read SAS-compatible files to facilitate data sharing with the Department's other contractors and stakeholders.

30.121.2.   Contractor Approach: The Contractor shall provide a tool, such as SAS Analytics, that allows users to generate and read files in SAS and SAS-compatible formats.

30.121.3.   Requirement Stage: BIDM Implementation Contract Stage III

30.122.   Reference #3628:   The Statistical Analysis Tool shall provide the functionality necessary for authorized BIDM users to identify, develop, and test rate-related risk corridors, such as plus or minus a certain percentage or set dollar amount of risk around a capitated rate, in relation to partial risk rate setting.

30.122.1.   Contractor Approach: The Contractor shall provide systems, such as the Advantage Suite system and SAS Analytics, for identifying, developing, and testing rate-related risk corridors. The systems shall include a historical database that enables users to create the parameters for analysis, such as complex claim and population stratifications. The system's sub-setting features, dimensions catalog, and measures catalog shall allow users to select and change the data and logic of interest, and enable them to test assumptions regarding the possible impacts of program changes, rate changes, and various risk strategies.

30.122.2.   Requirement Stage: BIDM Implementation Contract Stage III

30.123.   Reference #3629:   The Statistical Analysis Tool shall provide the functionality necessary for authorized BIDM users to identify, develop, and test rate-related stop-loss arrangement parameters, in relation to partial risk rate setting.

30.123.1.   Contractor Approach: The Contractor shall provide systems, such as the Advantage Suite system and SAS Analytics, for identifying, developing, and testing rate-related stop-loss arrangement parameters related to partial risk-sharing. The systems shall include a historical database that enables users to create the parameters for analysis, such as complex claim and population stratifications. The system's sub-setting features, dimensions catalog, and measures catalog shall allow users to select and change the data and logic of interest, and enable them to test assumptions regarding the possible impacts of program changes, rate changes, and various risk strategies. After running reports on historical data in one system, users shall be able to export the results as a baseline into another system to create a more sophisticated sensitivity model and project experience forward and then recalculate stop-loss levels. The systems shall be able to demonstrate how future programs may be impacted, given changes to how the stop-loss

programs are administered. In addition, users shall be able to forecast future expenditures by building a set of what-if or variant assumption rules based on the historical data.

30.123.2. Requirement Stage: BIDM Implementation Contract Stage III

30.124. Reference #3630: The Statistical Analysis Tool shall provide the functionality necessary for authorized BIDM users to conduct financial risk analysis, such as risk-sharing equations and forecasting abilities to establish risk sharing arrangements, in relation to partial risk rate setting.

30.124.1. Contractor Approach: The Contractor shall provide systems, such as the Advantage Suite system and SAS Analytics, for financial risk analysis, forecasting, and modeling risk sharing. The systems shall include a historical database that enables users to create the parameters for analysis, such as complex claim and population stratifications. The system's sub-setting features, dimensions catalog, and measures catalog shall allow users to select and change the data and logic of interest, and enable them to test assumptions regarding the possible impacts of program changes, rate changes, and various risk strategies. Expenditure trends shall be able to be produced by budget-relevant dimensions and viewed by date of service or date of payment. The systems' measures shall be able to be applied to reports using many combinations of attributes including demographic categories, geographic areas, plan and plan type, category of service, program, aid category, and others. The systems shall offer cost and eligibility standard report templates for trending and financial analysis. These templates shall be able to be easily modified to examine different time periods, measures, and dimensions, as desired. In addition, system users shall have extensive flexibility to design reports to their own specifications using the report designer feature. The systems shall be able to demonstrate how future programs may be impacted, given changes to the risk-sharing equation and forecast future expenditures by building a set of what-if or variant assumption rules based on the historical data.

30.124.2. Requirement Stage: BIDM Implementation Contract Stage III

30.125. Reference #3631: The Statistical Analysis Tool may be used to fulfill the SQL Tool requirements if the Statistical Analysis Tool has extensive SQL procedures and functionality, allowing SQL programmers to code directly using SQL rather than the tool's native language.

30.125.1. The Contractor may only use the Statistical Analysis Tool to fulfill the SQL Tool requirements if the Statistical Analysis Tool meets all requirements related to the SQL Tool as described in this Contract.

30.125.2. Contractor Approach: The Contractor shall provide a tool, such as the Dell/Quest product TOAD to meet the SQL Tool requirements. Contractor shall provide a system, such as SAS Analytics, which also allow authorized SQL programmers to explore data using either the SAS specific programming language or, if preferred, SQL procedures and functions.

30.125.3. Requirement Stage: BIDM Implementation Contract Stage III

30.126. Reference #3632: Any specified System Tool can be used to meet the requirements of another specified System Tool if the requirements of both System Tools as described in this Contract are met.

30.126.1. Contractor Approach: Contractor may meet certain requirements with more than one System Tool. Whenever a user has authorization to use multiple tools to access the same data, Contractor shall enable the user to utilize the application the user most prefers.

30.126.2. Requirement Stage: BIDM Implementation Contract Stage II

30.127. Reference #3633: The Contractor shall provide the ability of the BIDM to convert any external data into a system compatible format for use in queries.

30.127.1. Contractor Approach: The Contractor shall provide tools, such as Informatica ETL tools including Informatica B2B Data Exchange, to convert external data into a BIDM compatible format for use in queries.

30.127.2. Requirement Stage: BIDM Implementation Contract Stage III

30.128. Reference #3634: The Contractor shall provide the ability of the BIDM to convert any files generated using BIDM data into a system compatible format.

30.128.1. Contractor Approach: The Contractor shall provide a system, such as the Informatica B2B Data Exchange system, which has the ability to convert any files generated using BIDM data into a system compatible format. This system shall support universal transformation for all data formats into a common standard for use in queries and analysis, including unstructured data, industry-standard data, XML, and a number of proprietary formats.

30.128.2. Requirement Stage: BIDM Implementation Contract Stage III

30.129. Reference #3635: The Contractor shall provide an application that allows authorized BIDM users to directly enter narrative into a free-form text data field and link to specified records within the BIDM.

30.129.1. The free-form text data field shall allow for at least ten-thousand (10,000) characters within the BIDM.

30.129.2. Contractor Approach: The Contractor shall provide a system, such as the SAS Enterprise Case Management System (SAS ECM), which allows authorized users to directly enter narrative into a free-form text data field. Free-form text fields, such as a Notes field, shall be able to be added to any record type in the BIDM, to support users' workflow. The Notes field shall be associated with the specific record for which it was entered. The Notes field shall be able to store at least ten-thousand (10,000) characters of text.

30.129.2.1. During the implementation of the BIDM, the Contractor shall develop the ability for notes to be associated with other records in the BIDM, based on information from and as approved by the Department.

30.129.3. Requirement Stage: BIDM Implementation Contract Stage II

30.130. Reference #3636: The free-form text data field shall have an audit trail that records the authorized BIDM user who created and updated the field and the date and time the field was entered and updated.

30.130.1. Contractor Approach: The Contractor shall provide a system, such as the SAS ECM, to meet this requirement. As BIDM users enter content at various points in the workflow of a case, the case history shall capture the changes. The case history shall include an audit trail of changes to the case, including the user who made the change, the comment or change made, and the date and time the change was made.

30.130.2. Requirement Stage: BIDM Implementation Contract Stage II

30.131. Reference #3637: Authorized BIDM users shall have the ability to use the free-form text data field to display the narrative sorted by user and business unit and to display free form narrative in chronological or reverse chronological sequence.

30.131.1. Contractor Approach: The Contractor shall provide a system, such as the SAS ECM, to meet this requirement. As BIDM users enter content at various points in the workflow of a case, the case history shall capture the changes. This case history shall be searchable and allow others with proper access the ability to read the narratives and sort by user or business unit, as well as display in chronological or reverse chronological sequence.

30.131.2. Requirement Stage: BIDM Implementation Contract Stage II

30.132. Reference #3638: Within the free-form text data field, the Contractor shall provide basic word processing functionality such as sentence case, spell check, auto text, bold, underline, italics, color font, bulleted lists, tabs, indents, wrap-text, tables and ability to print.

30.132.1. Contractor Approach: The Contractor shall provide a tool, such as the SAS ECM. This system shall contain basic word processing functionality including, but not limited to, spell-check, auto text, bold, underline, italics, font color, bulleted lists, tabs, indents, wrap-text, tables and ability to print.

30.132.2. Requirement Stage: BIDM Implementation Contract Stage II

30.133. Reference #3639: The Contractor shall provide the ability for authorized BIDM users to query and report on unstructured data, such as text mining and clinical data.

30.133.1. Contractor Approach: Contractor shall provide tools, such as the SAS Text Miner tools, to allow authorized users to query and report on unstructured data. These tools shall contain linguistic and analytical modeling tools developed for discovering and extracting knowledge from collections of text content. The tools shall allow for patterns to be automatically identified as topics and themes, defining explicit associations between terms and phrases. The interface shall provide supervised, unsupervised, and semi-supervised methods to discover previously unknown patterns in document collections. The tools shall structure data in a numeric representation so that it can be included in advanced analytics, such as predictive analysis, data mining and forecasting.

30.133.2. Requirement Stage: BIDM Implementation Contract Stage III

30.134. Reference #3640: The Contractor shall ensure that System Tools and applications that are web based have compatibility with at least Internet Explorer, Safari, and Google Chrome.

30.134.1. The Contractor shall support software utilization in the current version and two prior versions of the web browsers where possible.

30.134.2. The Department may add support of additional browsers through the Change Management Process.

30.134.3. Contractor Approach: The Contractor shall ensure that the BIDM System Tools and applications that are web based are accessible using the internet browsers Internet Explorer, Safari, and Google Chrome. During implementation, Contractor shall provide the currently supported versions of each BIDM system tool. As new versions of the system tools are released and deployed into the environment, Contractor shall notify users of changes to supported browsers, whether there are new versions or additional browsers available. Over the life of the BIDM Project, each of the system tools included in the BIDM may undergo customary enhancements and fixes by its manufacturer, and these updates will be originated and scheduled by the software producer and shall be independent of this project's Change Management activities. For these software version updates, patches and fixes, the Contractor's Configuration Management Plan and processes shall only be involved in the scheduling of the software deployment within the

BIDM environments. Once the Contractor identifies needed software updates, the Configuration Control Board (CCB) will take up the request and coordinate the deployment.

30.134.4. Requirement Stage: BIDM Implementation Contract Stage II

30.135. Reference #3641: The Contractor shall ensure that System Tools and applications that are web based and compatible with the most commonly used web browsers over the term of the Contract.

30.135.1. The Contractor shall support software utilization in the current version and two prior versions of the web browsers where possible.

30.135.2. The Department may add support of additional browsers through the Change Management Process.

30.135.3. Contractor Approach: The Contractor shall ensure that the BIDM System Tools and applications that are web based are accessible using the internet browsers, such as Internet Explorer, Safari, and Google Chrome. During implementation, Contractor shall provide the currently supported versions of each system tool. As new versions of the system tools are released and deployed into the environment, Contractor shall notify users of changes to supported browsers, whether there are new versions or additional browsers available. Over the life of the BIDM Project, each of the system tools included in the BIDM Solution may undergo customary enhancements and fixes by its manufacturer and these updates will be originated and scheduled by the software producer and shall be independent of this project's Change Management activities. For these software version updates, patches and fixes, the Configuration Management Plan and processes will only be involved in the scheduling of the software deployment within the BIDM environments. Once the Contractor identifies needed software updates, the CCB will take up the request and coordinate the deployment.

30.135.4. Requirement Stage: BIDM Implementation Contract Stage III

30.136. Reference #3642: THIS REQUIREMENT INTENTIONALLY DELETED

30.137. Reference #3643: THIS REQUIREMENT INTENTIONALLY DELETED

30.138. Reference #3644: The Contractor shall provide the ability for the BIDM to perform extrapolations, document extrapolation process including claims, and report associated statistical validity and findings.

30.138.1. Contractor Approach: The Contractor shall provide tools, such as SAS Analytics tools, which allow the user to select and analyze scientifically valid random samples for both simple and complex sample designs. Once a universe of claims is created, a statistically valid random sample shall be drawn according to a sample design that is appropriate to the outcome under investigation, which auditors shall be able to review and from which extrapolations shall be able to be made. Sample shall be large enough to yield estimates (extrapolations) that are sufficiently precise to guard against legal challenges. The statistical methods employed by the tool to extrapolate the sample results to the universe shall be statistically valid, legally defensible, and shall be able to be documented if challenged by providers.

30.138.2. Requirement Stage: BIDM Implementation Contract Stage III

30.139. Reference #3645: The Contractor shall provide the ability to view the results of wild card searches, including both single character and string wildcard search, for all searchable fields, including searches with partial ID numbers.

30.139.1. Contractor Approach: The Contractor shall provide tools, such as IBM Cognos Business Intelligence tools, which include parameterized reports that can accept wildcard characters when there is a need to expand or narrow the parameters being used to generate the report.

30.139.2. Requirement Stage: BIDM Implementation Contract Stage III

30.140. Reference #3646: The Contractor shall provide the ability for external data to be used as a search/sort query parameter.

30.140.1. The Contractor shall provide the ability for external data to be linked to any structured data field in the BIDM for search/sort query parameter.

30.140.2. Contractor Approach: The Contractor shall provide multiple Business Intelligence tools that enable users to incorporate external data with System data for linking to any structured data field in the BIDM, such as Advantage Suite, Cognos and SAS.

30.140.3. Requirement Stage: BIDM Implementation Contract Stage III

30.141. Reference #3647: The Contractor shall assist authorized BIDM users when the System Tools are not responding within established parameters or data being returned does not reflect expected results.

30.141.1. Contractor Approach: To assist users in understanding the data or resolving system issues, the Contractor shall provide a comprehensive, tiered approach to support, including help and coaching from Contractor and toll-free help desk services. The first line of support for users' analytic and system questions shall be Contractor's local analytic and technical support staff, who are knowledgeable about the BIDM Solution, program areas, and specific requirements. These local staff shall work in close coordination with, and are backed by, Contractor's Product Support Contact Center.

30.141.2. Requirement Stage: BIDM Implementation Contract Stage II

30.142. Reference #3648: The Contractor shall provide the ability for authorized BIDM users, to query and report on relationships between client records, provider records, claim/encounter records, and other BIDM data.

30.142.1. Contractor Approach: The Contractor shall provide a data transformation process using tools, such as Informatica ETL tools, during which "golden records" shall be created for providers, clients, facilities, and locations. By using these cleansed "golden records", the ETL processes shall be able to establish relationships between providers and clients through the encounters and claims that are generated as a result of their interaction, so long as sufficient information exists to establish this linkage. Once the relationships have been established and Contractor has loaded the data into the BIDM appropriately, authorized users shall be able to query and report on this information whenever needed.

30.142.2. Requirement Stage: BIDM Implementation Contract Stage II

30.143. Reference #3649: The Contractor shall provide the capability to view all current and all historical reference data in a human readable format, including date-specific and multiple date for the business functions.

30.143.1. Contractor Approach: The Contractor shall design the BIDM Data Warehouse to display historical and current Reference data in coded form and with layperson descriptions, (i.e., human readable formats). Contractor shall license and obtain most reference data directly from the vendor, including, but not limited to, Diagnosis and Procedure data from CMS, procedure data

from the American Dental Association and American Medical Association, and pharmacy data from National Council for Prescription Drug Programs. Contractor shall work with the data suppliers to obtain human readable formats for all historical reference data where Contractor does not already have this information. Users of the BIDM reporting tools shall have access to codes, descriptions, and in some cases both the code and description in a single field for use in queries, analysis, reports, and exports to other tools.

30.143.2. Requirement Stage: BIDM Implementation Contract Stage III

30.144. Reference #3650: The Contractor shall provide the ability to implement tools provided separately by the Department and/or its contractors to query, analyze, and report on data in the BIDM.

30.144.1. The Department may obtain other third party software at its discretion. The Contractor shall not be responsible for providing or paying for any such third party software obtained by the Department outside of this Contract. In the event that the Department does obtain any such third party software, the Contractor shall work with the Department and its designees or other contractors to provide the ability for authorized BIDM users to use the software to access and fully utilize the BIDM data.

30.144.2. Contractor Approach: The Contractor shall provide a BIDM that is standards-based and is Open Database Connectivity (ODBC) and Java Database Connectivity (JDBC) compliant, thus enabling the Department to implement tools provided separately by the Department and/or its contractors to query, analyze, and report on data in the BIDM. In the event that the Department uses third party software to include in the BIDM System, Contractor shall work through the Change Management Process to ensure the tool can be leveraged.

30.144.3. Requirement Stage: BIDM Implementation Contract Stage II

30.145. Reference #3651: The Contractor shall provide the ability for authorized BIDM users to directly access, query, and report on multi-dimensional structures, such as meta-data, fact tables, cubes and data marts, raw data, and user created tables using all analytical tools, such as the Business Intelligence Tool and the SQL Tool, provided by the Contractor.

30.145.1. Contractor Approach: The Contractor shall provide tools, such as Cognos BI tools, to allow users with proper authority to access, query, and report on any data in any location in the BIDM Data Warehouse. Contractor shall provide tools, such as Advantage Suite tools, which will allow authorized users to have access to any data element in the data mart. Properly authorized Cognos users shall also be able to access the Advantage data mart. Contractor shall ensure that authorized users of the SAS tools have access to the data needed for specialized, advanced, statistical analysis. Contractor shall ensure that users of the TOAD tool will enable authorized Sandbox users to use SQL to design queries and that SQL coding can also be done in other tools. Contractor shall ensure that all the major analytical tools that the Contractor provides enable users to view the metadata for the data they are authorized to use.

30.145.2. Requirement Stage: BIDM Implementation Contract Stage II

30.146. Reference #3652: The Contractor shall provide the ability for authorized BIDM users to establish baselines and evaluate changes resulting from program or policy changes.

30.146.1. Contractor Approach: The Contractor shall provide a system, such as the Advantage Suite system, that includes a dynamic benchmarking feature to allow users to establish baselines and evaluate changes resulting from program or policy changes. Dynamic benchmarks shall be able to be used to compare the experience of one population segment to another; evaluate the performance of individual physicians, hospitals, and so on, against a standard such as a peer

group norm; or evaluate changes in the experience of a single population segment over time by adjusting for differences in demographics or severity of illness. Dynamic benchmarking shall also allow users to create a peer group norm from virtually any measure, dimension, or data element in the database, and then use it as a baseline to compare trends at variance with expected levels. Deviations from the norm shall be able to be defined and weighted in many ways, and can be altered by the user whenever desired.

30.146.2. Requirement Stage: BIDM Implementation Contract Stage III

30.147. Reference #3653: The Contractor shall ensure that any querying and reporting functionality within the BIDM supports the ability to pull and use the narrative descriptions of codes and abbreviations in addition to the codes and abbreviations themselves.

30.147.1. Contractor Approach: The Contractor shall design the BIDM Data Warehouse to display historical and current Reference data in coded form and with layperson descriptions, in human readable formats. Users of the BIDM reporting tools shall have access to codes, descriptions, and in some cases both the code and description in a single field for use in queries, analysis, reports, and exports to other tools.

30.147.2. Requirement Stage: BIDM Implementation Contract Stage III

30.148. Reference #3654: The Contractor shall maintain and use the same System Tool software and version of software as is used by authorized BIDM users.

30.148.1. Contractor Approach: The Contractor shall ensure that Contractor's project staff members always use the same BIDM software and version as the Department's users.

30.148.2. Requirement Stage: BIDM Implementation Contract Stage II

30.149. Reference #3655: The Contractor shall provide a Data Suppression Tool that allows authorized BIDM users to generate de-identified datasets for external release.

30.149.1. The Contractor shall allow authorized BIDM users to modify/update rules to allow different levels of de-identification depending on the Department's business need, such as the ability to completely de-identified data or create limited data sets.

30.149.2. Contractor Approach: The Contractor shall provide tools, such as the Informatica PowerCenter data-masking tools, that protect sensitive, private information by masking it in flight to produce de-identified but realistic-looking data. These tools shall feature multiple data-masking techniques and algorithms to ensure randomization while maintaining the original nature of the data and preserving referential integrity. The tools shall also include specialized, built-in content and rules for common sensitive fields, such as name, address, and Social Security Number. Contractor shall provide access for authorized system users to this data-masking functionality and to give them the ability to modify/update data suppression criteria to meet Department-defined HIPAA and Safe Harbor criteria.

30.149.3. Requirement Stage: BIDM Implementation Contract Stage II

30.150. Reference #3656: At no additional cost to the Contractor, the Department may obtain other third party software that will allow authorized BIDM users the ability query, analyze, report on, and extract data in the BIDM.

30.150.1. Through the Change Management Process, the Contractor shall work with the Department to ensure the software can access and fully utilize data in the BIDM.

30.150.2. Contractor Approach: The Contractor shall provide a BIDM that is standards-based and is ODBC and JDBC compliant, thus enabling the Department to implement tools provided separately by the Department and/or its contractors to query, analyze, and report on data in the BIDM. In the event that the Department uses third party software to include in the BIDM System, Contractor shall work through the Change Management Process to ensure the tool can be leveraged.

30.150.3. Requirement Stage: BIDM Implementation Contract Stage II

30.151. Reference #3657: The Contractor shall provide the ability for the authorized BIDM users to search and query by data fields and incorporate documentation associated with these data fields into the results.

30.151.1. Contractor Approach: The Contractor shall provide tools, such as the Advantage Suite and Cognos tools, to allow users to incorporate documentation about a report's data fields as annotations in the report footer. The tools shall contain a lineage feature that allows authorized users to trace the metadata of a data item in a report and display the filters that were used. The tools shall automatically insert a definition of the data subset used to create the report and the system shall support searching for the definitions for dimensions, measures, and subsets.

30.151.2. Requirement Stage: BIDM Implementation Contract Stage III

30.152. Reference #3658: The Contractor shall provide System Tools with the ability for authorized BIDM users to build, name, and save multiple user-defined search and sort parameters so that authorized BIDM users can repeat the same search/sort queries at a later time.

30.152.1. Contractor Approach: The Contractor shall provide business intelligence and analytical tools that give users the ability to build, name, and save multiple user-defined search and sort parameters so that authorized BIDM users can repeat the same search/sort queries at a later time.

30.152.2. Requirement Stage: BIDM Implementation Contract Stage III

30.153. Reference #3659: The Contractor shall design the user interface to allow for the efficient keying of information into the BIDM, including being able to key information without requiring additional keystrokes or mouse movements, such as slashes, dashes, or double entry and context sensitive auto completion of fields.

30.153.1. Contractor Approach: The Contractor shall provide business intelligence and analytical tools that have user configuration options and interfaces designed with efficient use in mind. Major actions within the systems shall not require multiple clicks and shall not require additional keystrokes.

30.153.2. Requirement Stage: BIDM Implementation Contract Stage III

30.154. Reference #3660: The Contractor shall provide System Tools and applications that support Window's based shortcuts, or similar functionality, such as ctrl-c for copy and ctrl-v for paste.

30.154.1. Contractor Approach: The Contractor shall provide business intelligence and analytical tools that have keyboard shortcuts for use in activating drop-down menus or selecting buttons for most interfaces, in addition to the use of industry standard shortcut keys for copy (CTRL-C), cut (CTRL-X) and paste (CTRL-V).

30.154.2. Requirement Stage: BIDM Implementation Contract Stage III

30.155. Reference #3661: The Contractor shall provide System Tools that support the ability to display different/multiple aspect ratios and screen resolutions for BIDM displayed data, with the ability to maximize, minimize, and show multiple screen displays.

30.155.1. Contractor Approach: The Contractor shall provide business intelligence and analytical tools where most user windows are able to be resized to accommodate different user preferences. When the screen resolution is different than the recommended setting, horizontal and/or vertical scroll bars shall be available to eliminate truncation of the content.

30.155.2. Requirement Stage: BIDM Implementation Contract Stage III

30.156. Reference #3662: THIS REQUIREMENT INTENTIONALLY DELETED

30.157. Reference #3663: THIS REQUIREMENT INTENTIONALLY DELETED

30.158. Reference #3664: THIS REQUIREMENT INTENTIONALLY DELETED

30.159. Reference #3665: The Contractor shall provide a Business Intelligence Tool or Tools that allows authorized BIDM users to embed comments and notes into queries.

30.159.1. This functionality shall enable authorized BIDM users to fully document projects within the Business Intelligence Tools, in a manner analogous to commenting out lines within an SQL script.

30.159.2. Contractor Approach: Contractor shall provide a BIDM that enables authorized users to add comments or annotations to reports and queries.

30.159.3. Requirement Stage: BIDM Implementation Contract Stage III

31. GENERAL REPORTING

31.1. Reference #3666: The Contractor shall develop, document, maintain, and provide a report of unduplicated client counts for Long-Term Care and Home- and Community-Based Services by county per Department specifications.

31.1.1. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.1.2. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

31.1.3. Contractor Approach: The Contractor shall develop, document, maintain, and provide a report of unduplicated client counts for Long-Term Care and Home- and Community-Based Services by county per Department specifications.

31.1.4. Deliverable: Unduplicated Client Counts Long-Term Care and Home- and Community-Based Services by County Reports

31.1.5. Deliverable Stage: BIDM Implementation Contract Stage III

31.2. Reference #3667: The Contractor shall develop, document, maintain, and provide reports related to pregnancy and deliveries per Department specifications.

31.2.1. At a minimum, the reports shall provide unique client counts, expenditures, and average costs for various deliveries and related services in Medicaid, including:

31.2.1.1. Deliveries by County.

31.2.1.2. Delivery Types.

31.2.1.3. Age Group of Mother.

31.2.1.4. Low Birth weight, Preterm, and Neonatal Intensive Care Unit.

31.2.1.5. Neonatal Intensive Care Unit.

31.2.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.2.3.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

31.2.4.   Contractor Approach: The Contractor shall develop, document, maintain, and provide reports related to pregnancy and deliveries per Department specifications.

31.2.4.1.   At a minimum, the reports shall provide unique client counts, expenditures, and average costs for various deliveries and related services in Medicaid, including all of the following:

31.2.4.1.1.   Deliveries by County.

31.2.4.1.2.   Delivery Types.

31.2.4.1.3.   Age Group of Mother.

31.2.4.1.4.   Low Birth weight, Preterm, and Neonatal Intensive Care Unit.

31.2.4.1.5.   Neonatal Intensive Care Unit.

31.2.5.   Deliverable: Pregnancy and Deliveries Reports

31.2.6.   Deliverable Stage: BIDM Implementation Contract Stage III

31.3.   Reference #3668: The Contractor shall develop, document, maintain, and provide a report that will rank the diagnosis codes and services by unduplicated client count, unduplicated provider count, expenditure, and utilization by service area per Department specifications.

31.3.1.   At a minimum, the report shall include the following service areas:

31.3.1.1.   Inpatient Hospital.

31.3.1.2.   Outpatient Hospital.

31.3.1.3.   Federal Qualified Health Centers (FQHCs).

31.3.1.4.   Rural Health Centers.

31.3.1.5.   Physician and Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) Services.

31.3.1.6.   Dental.

31.3.1.7.   Laboratory.

31.3.1.8.   Durable Medical Equipment and Supplies.

31.3.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.3.3.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

31.3.4.   Contractor Approach: The Contractor shall develop, document, maintain, and provide a report that will rank the diagnosis codes and services by unduplicated client count, unduplicated provider count, expenditure, and utilization by service area per Department specifications.

31.3.4.1.   The report shall include at least the following service areas:

31.3.4.1.1.   Inpatient Hospital.

31.3.4.1.2.   Outpatient Hospital.

31.3.4.1.3.   Federally Qualified Health Centers (FQHCs).

31.3.4.1.4.   Rural Health Centers.

31.3.4.1.5.   Physician and EPSDT Services.

31.3.4.1.6.   Dental.

31.3.4.1.7.   Laboratory.

31.3.4.1.8.   Durable Medical Equipment and Supplies.

31.3.5.   Deliverable: Diagnosis Codes Reports

31.3.6.   Deliverable Stage: BIDM Implementation Contract Stage III

31.4.   Reference #3669: The Contractor shall provide reporting and analytic capabilities related to Medicare Buy-In billing, accretion, discontinuation, re-accretion and/or change requests for Medicare Buy-In.

31.4.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.4.2.   Contractor Approach: The Contractor shall provide reports related to Medicare Buy-In billing, accretion, discontinuation, re-accretion and/or change requests for Medicare Buy-In, using data available within the BIDM.

31.4.3.   Deliverable: Medicare Buy-In Reports

31.4.4.   Deliverable Stage: BIDM Implementation Contract Stage II

31.5.   Reference #3670: The Contractor shall provide the capability to capture from the BIDM Interfacing Systems, all cash collections, post-payment recoveries, cost-avoidance data, Medicare Buy-In, and Health Insurance Buy-In necessary to complete the third-party section of the CMS-64.

31.5.1.   Contractor Approach: The Contractor shall collect from the necessary source systems cash collections, post-payment recoveries, cost-avoidance data, Medicare Buy-In, and Health Insurance Buy-In data necessary to complete the third-party section of the CMS-64.

31.5.2.   Requirement Stage: BIDM Implementation Contract Stage II

31.6.   Reference #3671: The Contractor shall develop, document, maintain, and provide Medicare Buy-In related reports per Department specifications.

31.6.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.6.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide reports related to Medicare Buy-In using data available within the BIDM.

31.6.3.   Deliverable: Medicare Buy-In Reports

31.6.4.   Deliverable Stage: BIDM Implementation Contract Stage II

31.7.   Reference #3672: The Contractor shall develop, document, maintain, and provide premium collection reports per Department specifications.

31.7.1.   The premium collection reports shall facilitate tracking and reporting premium payments associated with CHP+ and Medicaid Buy-In populations.

31.7.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide premium collection reports related to tracking and reporting premium payments associated with CHP+ and Medicaid Buy-In populations, using data available within the BIDM.

31.7.3.   Deliverable: Premium Collection Reports

31.7.4.   Deliverable Stage: BIDM Implementation Contract Stage III

31.8.   Reference #3673: The Contractor shall produce CMS-372 and CMS-372S annual reports, or more often if necessary, for any calendar year or federal or State fiscal year and for all current and future HCBS Waivers or waiver related programs, in accordance with CMS requirements.

31.8.1.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.8.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.8.3.   Contractor Approach: The Contractor shall produce data necessary for the CMS-372 and CMS-372S annual reports for any reporting year and for all current and future HCBS Waivers or waiver-related programs, in accordance with the most up-to-date CMS requirements, using data available within the BIDM.

31.8.4.   Deliverable: CMS-372 and CMS-372S Reports

31.8.5.   Deliverable Stage: BIDM Implementation Contract Stage II

31.9.   Reference #3674: Provide the ability to generate financial reporting that will match the data in CORE based on Department-defined criteria and produce quarterly estimates and expenditure reports for the required Federal reporting to the CMS-37, CMS-64, CMS-21, and CMS-21b.

31.9.1.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.9.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.9.3.   Contractor Approach: The Contractor shall enable the BIDM System to generate financial reports that will match the data in the Department's financial system (CORE) based on Department-defined criteria and produce quarterly estimates and expenditure reports for the required Federal reporting for the CMS-37, CMS-64, CMS-21, and CMS-21b, using the most up-to-date federal requirements.

31.9.4.   Deliverable: Financial Reports

31.9.5.   Deliverable Stage: BIDM Implementation Contract Stage II

31.10.   Reference #3675: The Contractor shall develop, document, maintain, and provide the CMS-37 Medicaid Program Budget Report per the most up-to-date CMS requirements.

31.10.1.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.10.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.10.3.   Contractor Approach: The Contractor shall develop, document, maintain, and produce reports to support the CMS-37 Medicaid Program Budget Report. To support the CMS-37 report, the

Contractor shall categorize historical enrollment and expenditures using CMS-37 reporting categories and provide trend projections. The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.10.4.   Deliverable: Data for the CMS-37 Reports

31.10.5.   Deliverable Stage: BIDM Implementation Contract Stage II

31.11.   Reference #3676: The Contractor shall develop, document, maintain, and provide the CMS-21B State Children's Health Insurance Program Budget Report for the Title XXI Program State Plan Expenditures per the most up-to-date CMS requirements.

31.11.1.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.11.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.11.3.   Contractor Approach: The Contractor shall develop, document, maintain, and provide data for the CMS-21 Quarterly CHIP Statement of Expenditures for the Title XXI Program, using the most up-to-date CMS requirements. The Contractor shall also develop, document, maintain, and provide data for the CMS-21B State Children's Health Insurance Program Budget Report for the Title XXI Program State Plan Expenditures. The Contractor shall develop these reports using data available within the BIDM.

31.11.4.   Deliverable: Data for the CMS-21B Report

31.11.5.   Deliverable Stage: BIDM Implementation Contract Stage II

31.12.   Reference #3677: The Contractor shall develop, document, maintain, and provide CMS-372- and CMS-372S-like reports per federal requirements associated with the Money Follows the Person (MFP) program, also known as Colorado Choice Transitions (CCT).

31.12.1.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.12.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.12.3.   Contractor Approach: The Contractor shall develop, document, maintain, and provide data necessary for the CMS-372- and CMS-372S-like reports per Federal requirements associated with CCT, in accordance with the most up-to-date CMS requirements, using data available within the BIDM.

31.12.4.   Deliverable: MFP Related CMS-372 and CMS-372S Reports

31.12.5.   Deliverable Stage: BIDM Implementation Contract Stage II

31.13.   Reference #3678: The Contractor shall develop, document, maintain, and provide the CMS-64 Quarterly Medicaid Statement of Expenditures for the Medical Assistance Program per the most up-to-date CMS requirements.

31.13.1.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.13.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.13.3. Contractor Approach: The Contractor shall develop, document, maintain, and provide reports to support the CMS-64 Quarterly Medicaid Statement of Expenditures for the Medical Assistance Program per the most up-to-date CMS requirements, using data available within the BIDM.

31.13.4. Deliverable: Data for the CMS-64 Reports

31.13.5. Deliverable Stage: BIDM Implementation Contract Stage II

31.14. Reference #3679: The Contractor shall develop, document, maintain, and provide CMS-64-like reports per the most up-to-date federal requirements associated with the CCT program.

31.14.1. The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.14.2. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.14.3. Contractor Approach: The Contractor shall develop, document, maintain, and provide CMS-64-like reports per the most up-to-date Federal requirements associated with the MFP program, known as CCT, using data available within the BIDM.

31.14.4. Deliverable: Data for the CCT Related CMS-64 Reports

31.14.5. Deliverable Stage: BIDM Implementation Contract Stage II

31.15. Reference #3680: The Contractor shall develop, document, maintain, and provide the CMS-21 Quarterly CHIP Statement of Expenditures for the Title XXI Program per the most up-to-date CMS requirements.

31.15.1. The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.15.2. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.15.3. Contractor Approach: The Contractor shall develop, document, maintain, and provide data for the CMS-21 Quarterly CHIP Statement of Expenditures for the Title XXI Program, using the most up-to-date CMS requirements. The Contractor shall develop the reports using data available within the BIDM.

31.15.4. Deliverable: Data for the CMS-21 Reports

31.15.5. Deliverable Stage: BIDM Implementation Contract Stage II

31.16. Reference #3681: The Contractor shall develop, document, maintain, and provide a report for authorized BIDM users of the Department's payment due to CMS for the state's share of Medicare Part D costs as part of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA), also known as the "Part D Clawback", per the most current CMS requirements.

31.16.1. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.16.2. Contractor Approach: The Contractor shall develop, document, maintain, and provide a report related to the payment due to CMS for the state's share of the Medicare Part D costs as part of the MMA. The Contractor shall develop the reports using data available within the BIDM.

31.16.3. Deliverable: Data for the Part D Clawback Reports

31.16.4. Deliverable Stage: BIDM Implementation Contract Stage II

31.17. Reference #3682: The Contractor shall capture and maintain into the BIDM current, date-sensitive Colorado contribution rate/per capita rate associated with the Part D Clawback and shall maintain historical, date-sensitive contribution rates.

31.17.1. The Contractor shall obtain the appropriate Medicare Part D contribution rates, which are available in the CMS letters to the State Medicaid Directors on the CMS website.

31.17.2. Contractor Approach: The Contractor shall capture and maintain into the BIDM the current, date-sensitive Colorado contribution rate/per capita rate associated with the Part D Clawback and shall maintain historical, date-sensitive contribution rates, by obtaining the Part D rates from the CMS website.

31.17.3. Requirement Stage: BIDM Implementation Contract Stage II

31.18. Reference #3683: Provide the ability to link BIDM reporting and dashboards to users who don't traditionally login to the BIDM, but rather need to obtain real time information and dashboard reporting through Department intranet solutions, such as when the user opens the Department's internal Microsoft SharePoint application the BIDM dashboard reporting is available and automatically refreshes.

31.18.1. Contractor Approach: The Contractor shall provide information via dashboards accessible to users who do not traditionally log in to an analytical reporting tool. The Contractor shall leverage the capabilities of a tool, such as the Cognos Connection platform, to deliver dashboards to all user levels. Department staff shall be able to access the dashboards over the Department's Intranet.

31.18.2. Requirement Stage: BIDM Implementation Contract Stage III

31.19. Reference #3684: The Contractor shall produce quarterly and annual reports based on current CMS-416 Annual EPSDT reporting criteria that are stratified per Department specified criteria, such as state, county, metropolitan area, urban/rural status, health plan and foster care status.

31.19.1. The Contractor shall produce and distribute the report as agreed upon and outlined in the Communication Management Plan.

31.19.2. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.19.3. Contractor Approach: The Contractor shall produce quarterly and annual reports based on current CMS-416 annual EPSDT reporting criteria that are stratified per Department-specified criteria, such as state, county, metropolitan area, urban/rural status, health plan and foster care status. Contractor shall develop the reports using data available within the BIDM.

31.19.4. Deliverable: CMS-416 Reports

31.19.5. Deliverable Stage: BIDM Implementation Contract Stage II

31.20. Reference #3685: The BIDM shall identify newly eligible children per EPSDT and Department criteria.

31.20.1. The BIDM shall provide this information back to the Core MMIS.

31.20.2. Contractor Approach: The Contractor shall manage the data needed to support EPSDT reporting. Using data available within the BIDM, the Contractor shall identify newly eligible children per EPSDT and Department criteria and provide this information back to the Core MMIS.

31.20.3.   Requirement Stage: BIDM Implementation Contract Stage II

31.21.   Reference #3686: The BIDM shall identify newly eligible pregnant women and existing clients newly identified as pregnant per EPSDT and Department criteria.

31.21.1.   The BIDM shall provide this information back to the Core MMIS.

31.21.2.   Contractor Approach: The Contractor shall identify newly eligible pregnant women and existing clients newly identified as pregnant per EPSDT and Department criteria and provide this information back to the Core MMIS. The Contractor shall develop the reports using data available within the BIDM.

31.21.3.   Requirement Stage: BIDM Implementation Contract Stage II

31.22.   Reference #3687: The BIDM shall identify children for whom vaccinations are needed based on current EPSDT periodicity schedules.

31.22.1.   The BIDM shall provide this information back to the Core MMIS.

31.22.2.   Contractor Approach: The Contractor shall identify children for whom vaccinations are needed based on current EPSDT periodicity schedules and provide this information back to the Core MMIS. The Contractor shall develop the reports using data available within the BIDM.

31.22.3.   Requirement Stage: BIDM Implementation Contract Stage III

31.23.   Reference #3688: The BIDM shall identify the screening and related diagnosis and treatment services each EPSDT client has received per Department specifications.

31.23.1.   The BIDM shall provide this information back to the Core MMIS.

31.23.2.   Contractor Approach: Using data available within the BIDM, the Contractor shall identify the screening and related diagnosis and treatment services each EPSDT client has received per Department specifications and provide this information back to the Core MMIS.

31.23.3.   Requirement Stage: BIDM Implementation Contract Stage III

31.24.   Reference #3689: The Contractor shall develop, document, maintain, and produce a report evaluating immunization coverage for the Medicaid population using the most up-to-date EPSDT periodicity schedule per Department specifications.

31.24.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.24.2.   Contractor Approach: The Contractor shall develop, document, maintain, and produce a report evaluating immunization coverage for the Medicaid population using the most up-to-date EPSDT periodicity schedule per Department specifications.

31.24.3.   Deliverable: EPSDT Immunization Reports

31.24.4.   Deliverable Stage: BIDM Implementation Contract Stage III

31.25.   Reference #3690: The BIDM shall identify the screening and related diagnosis and treatment services the client should have received but for which no record, such as a claim or encounter, has been obtained based on the most up-to-date EPSDT periodicity schedules.

31.25.1.   The BIDM shall provide this information back to the Core MMIS.

31.25.2.   Contractor Approach: The Contractor shall identify the screening and related diagnosis and treatment services the client should have received but for which no record has been obtained,

such as a claim/encounter, based on the most up-to-date EPSDT periodicity schedules and provide this information back to the Core MMIS. The Contractor shall develop the reports using data available within the BIDM.

31.25.3. Requirement Stage: BIDM Implementation Contract Stage III

31.26. Reference #3691: The Contractor shall provide the ability for authorized BIDM users to meet all federal, State, County, Department and foster care EPSDT reporting requirements, such as vaccination rates, using the most up-to-date federal reporting guidelines.

31.26.1. The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.26.2. Contractor Approach: The Contractor shall enable users to meet all Federal, State, County, Department, and foster care EPSDT reporting requirements, such as vaccination rates, using the most up-to-date Federal reporting guidelines.

31.26.3. Requirement Stage: BIDM Implementation Contract Stage II

31.27. Reference #3692: The Contractor shall develop, document, maintain, and produce report(s) per Department specifications evaluating immunization coverage for the Medicaid population using current CDC "age-appropriate" recommendations by individual provider's practice, by health plan type, by client characteristics, by geographic area, and statewide.

31.27.1. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.27.2. Contractor Approach: The Contractor shall develop, document, maintain, and produce report(s) per Department specifications evaluating immunization coverage for the Medicaid population using current CDC "age-appropriate" recommendations by individual provider's practice, by health plan type, by client characteristics, by geographic area, and statewide.   The Contractor shall develop the reports using data available within the BIDM.

31.27.3. Deliverable: Immunization Coverage Reports

31.27.4. Deliverable Stage: BIDM Implementation Contract Stage III

31.28. Reference #3693: The Contractor shall develop, document, maintain, and produce family planning reports per Department specifications.

31.28.1. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.28.2. The Contractor shall provide Planned Parenthood claims/encounters as part of the overall report as well as in a separate report.

31.28.3. Contractor Approach: The Contractor shall develop, document, maintain, and produce family planning reports. Family Planning/Planned Parenthood claims/encounters shall be provided both as part of the total report and as a separate report.

31.28.4. Deliverable: Family Planning Reports; Planned Parenthood Reports

31.28.5. Deliverable Stage: BIDM Implementation Contract Stage III

31.29. Reference #3694: The Contractor shall develop, document, maintain, and provide a report on family-planning related services, abortions and sterilizations, including distinct client counts, units of service and payments, per Department specifications.

31.29.1.   The report(s) shall include totals and stratifications, such as Health Benefit Plan, provider, RCCO and provider type, as directed by the Department.

31.29.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide a report on family-planning related services, abortions and sterilizations, such as distinct client counts, units of service and payments, per Department specifications. Using data available within the BIDM, reports shall include totals and stratifications, such as Health Benefit Plan, provider, RCCO and provider type, as directed by the Department.

31.29.3.   Deliverable: Family Planning Services Reports

31.29.4.   Deliverable Stage: BIDM Implementation Contract Stage III

31.30.   Reference #3695: The Contractor shall develop, document, maintain, and provide Management and Administrative Reports (MAR) per the most up-to-date State, federal, and/or Department specifications.

31.30.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

31.30.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide MARs per the most up-to-date State, Federal, and/or Department specifications.

31.30.3.   Deliverable: MARs

31.30.4.   Deliverable Stage: BIDM Implementation Contract Stage II

31.31.   Reference #3696: The Contractor shall develop, document, maintain, and deliver per Department specifications a variety of financial reports to facilitate cost reporting and financial monitoring of all waivers, other long term care benefits and services, and benefits utilization services programs.

31.31.1.   These shall include both federal reports and other reports beyond federal reporting requirements.

31.31.2.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each report is produced.

31.31.3.   Contractor Approach: The Contractor shall develop, document, maintain, and deliver a variety of financial reports to facilitate cost reporting and financial monitoring of all waivers, other long-term care benefits and services, and benefits utilization services programs. The Contractor shall comply with the most up-to-date Federal reporting guidelines; these reports shall include agreed to standard Federal reports and additional reporting requirements beyond Federal reports. The Contractor shall develop the reports using data available within the BIDM.

31.31.4.   Deliverable: LTC Cost Reporting and Financial Monitoring Reports, as defined in the DSD

31.31.5.   Deliverable Stage: BIDM Implementation Contract Stage II

31.32.   Reference #3697: The Contractor shall develop, document, maintain, and provide per Department specifications utilization reports for monitoring cost neutrality of waivers, other long term care benefits and services, and benefits utilization services delivered to a target population.

31.32.1.   This may include average calculations on either an individual, per participant basis or an aggregate basis, as determined by the Department.

31.32.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications utilization reports for monitoring cost neutrality of waivers, other long-term care benefits and services, and benefits utilization services delivered to a target

population; the reports may include average calculations on either an individual, per participant basis or an aggregate basis, as determined by the Department.

31.32.3.   Deliverable: LTC Cost Neutrality Reports

31.32.4.   Deliverable Stage: BIDM Implementation Contract Stage II

31.33.   Reference #3698: The Contractor shall develop, document, maintain, and produce post payment review report(s) based on claims/encounters adjudication criteria and specific edit(s) as established by authorized BIDM users.

31.33.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.33.2.   Contractor Approach: The Contractor shall develop, document, maintain, and produce post payment review report(s) based on claims/encounters adjudication criteria and specific edit(s) as established by authorized BIDM users. The Contractor shall develop the reports using data available within the BIDM.

31.33.3.   Deliverable: Post Payment Review Reports

31.33.4.   Deliverable Stage: BIDM Implementation Contract Stage III

31.34.   Reference #3699: The Contractor shall develop, document, maintain, and produce reports of financial transactions related to recoveries and offsets.

31.34.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.34.2.   Contractor Approach: The Contractor shall develop, document, maintain, and produce reports of financial transactions related to recoveries and offsets.

31.34.3.   Deliverable: Financial Transaction Reports Related to Recoveries and Offsets

31.34.4.   Deliverable Stage: BIDM Implementation Contract Stage III

31.35.   Reference #3700: The Contractor shall develop, document, maintain, and provide per Department specifications Medicare Part C, also known as Medicare Advantage Plan, Client reports. These ad hoc reports are generated at the request of Medicare Advantage Plans using data supplied by the plans.

31.35.1.   The Contractor shall match the information supplied by the plans with the information in the BIDM, and produce a report containing eligibility and claims information from the BIDM to be returned to the plans.

31.35.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide, per Department specifications, Medicare Advantage Plan Client reports. The Contractor shall generate these ad hoc reports at the request of Medicare Advantage Plans using data supplied by the plans. The Contractor shall produce these reports at the sole direction of the Department. The Contractor shall match the information supplied by the plans with the information in the BIDM, and produce a report containing eligibility and claims information from the BIDM to be returned to the plans.

31.35.3.   Requirement Stage: BIDM Operations and Enhancement Contract Stage

31.36.   Reference #3701: The Contractor shall develop, document, maintain, and provide the CMS-R-266 Medicaid Disproportionate Share Hospital (DSH) Annual Reporting Requirements in conjunction with Department staff.

31.36.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.36.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide information available in the BIDM for the CMS-R-266 Medicaid DSH Annual Reporting Requirements in conjunction with Department staff. The Contractor shall develop the reports using data available within the BIDM.

31.36.3.   Deliverable: DSH Reports

31.36.4.   Deliverable Stage: BIDM Implementation Contract Stage III

31.37.   Reference #3702: The Contractor shall develop, document, maintain, and provide reports and data, such as finders file, participation file, and quality of life, associated with the CCT Program.

31.37.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.37.2.   The Contractor shall comply with the most up-to-date federal MFP reporting guidelines at the time each report is produced.

31.37.3.   Contractor Approach: Using data available in the BIDM Data Warehouse, the Contractor shall develop, document, maintain, and provide reports and data, such as finders file, participation file, and quality of life, associated with the CCT Program. The Contractor shall comply with the most up-to-date federal MFP reporting guidelines at the time each report is produced.

31.37.4.   Deliverable: CCT Reports

31.37.5.   Deliverable Stage: BIDM Implementation Contract Stage III

31.38.   Reference #3703: The Contractor shall capture in the BIDM all data required to develop, produce, and maintain all reporting functions, files and data elements to meet current and future federal reporting requirements, State and federal rules and regulations, Federal MMIS certification requirements, and Part 11 of the State Medicaid Manual.

31.38.1.   Any changes required by federal reporting requirements implemented after the Effective Date will be handled via the Change Management Process.

31.38.2.   Contractor Approach: The Contractor shall design the BIDM Data Warehouse and reporting tools to capture the data and develop, produce, and maintain all reporting functions and files that are required to meet State and federal rules and regulations, including Federal MMIS certification requirements and Part 11 of the State Medicaid Manual. The Contractor shall use the Change Management Process to effectuate any changes to the data that may be needed because of changes in federal reporting requirements.

31.38.3.   Requirement Stage: BIDM Implementation Contract Stage II

31.39.   Reference #3704: The Contractor shall perform annual review of existing reports and reporting needs, with the Department, and make recommendations on improvements to and discontinuation of unnecessary legacy reports.

31.39.1.   The Contractor shall document the review in an Annual Inventory of Reports and Utilization of Reports.

31.39.2.   Contractor Approach: The Contractor shall perform, with the Department, an annual review of existing reports and reporting needs, and recommend whether to continue, improve, or

discontinue any legacy reports. From this review process, The Contractor shall produce the Annual Inventory of Reports and Report Utilization.

31.39.3.   Deliverable: Annual Inventory of Reports and Utilization of Reports

31.39.4.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

31.40.   Reference #3705: The Contractor shall annually review parameters, format, and production criteria for all Contractor developed reports and routine reports developed by authorized BIDM users that have been transitioned to the Contractor.

31.40.1.   These reviews shall be conducted in conjunction with the Department, the authorized BIDM user(s) who developed the report, and/or the most frequent report utilizers.

31.40.2.   These reviews shall occur on a schedule as agreed upon and outlined in the Communication Management Plan.

31.40.3.   Contractor Approach: The Contractor shall perform, with the Department, an annual review of existing reports and recommend changes in report parameters, formats, and/or production criteria. The Contractor shall conduct the review on a schedule as agreed upon and outlined in the Communication Management Plan. The Contractor shall conduct the review in conjunction with the Department, the authorized BIDM user(s) who develop reports, and the most frequent report utilizers. The Contractor shall assist the Department in identifying and removing obsolete reports, and the Contractor shall move to the production schedule any new reports that BIDM users have developed that the Department deems should be produced on a regular basis.

31.40.4.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

31.41.   Reference #3706: The Contractor shall update reports, including parameters, format, scheduling and documentation, requiring modifications as identified by the Department or as part of the annual review of reports.

31.41.1.   These updates shall occur on a schedule as agreed upon and outlined in the Communication Management Plan.

31.41.2.   Contractor Approach: As a result of the annual review of reports, the Contractor shall update reports requiring modification, including the update of report parameters, formats, scheduling and documentation. The Contractor shall conduct the review on a schedule as agreed upon and outlined in the Communication Management Plan.

31.41.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

31.42.   Reference #3707: The Contractor shall provide report documentation with any Contractor created report so the documentation is readily available to the report recipient.

31.42.1.   Contractor Approach: The Contractor shall develop documentation for all Contractor-developed reports and make the documentation available to report recipients either online within the report application itself or via the document management system. The Contractor shall also include documentation as a part of the report.

31.42.2.   Requirement Stage: BIDM Implementation Contract Stage III

31.43.   Reference #3708:   The Contractor shall perform annual review and maintenance with the Department of all reports for which the Contractor is responsible for developing, maintaining, and/or producing, including system generated reports.

31.43.1.   This review shall include evaluation and update of parameters, documentation, distribution, and delivery schedule and validate changes.

31.43.2.   Contractor Approach: The Contractor shall perform, with the Department, an annual review of existing reports and reporting needs, and recommend whether to continue, improve, or discontinue any legacy reports. The Contractor shall include in this review any reports that the Contractor is responsible for developing, maintaining, and/or producing including system generated reports. The Contractor shall ensure that the review includes the evaluation and update of report parameters, documentation, distribution, and delivery schedule, and shall validate all changes.

31.43.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

31.44.   Reference #3709: The Contractor shall develop, document, maintain, and provide documentation per Department specifications regarding utilization of reports accessed by authorized BIDM users.

31.44.1.   For each other report in the BIDM, this documentation shall include all of the following:

31.44.1.1.   The frequency of utilization of the report.

31.44.1.2.   The most recent utilization of the report.

31.44.1.3.   The most common authorized BIDM users accessing the report.

31.44.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide report(s) per Department specifications regarding utilization of reports accessed by authorized BIDM users. The report(s) shall include the frequency of utilization, most recent utilization, and a list of the users that ran the report.

31.44.3.   Deliverable: BIDM Report Utilization Documentation

31.44.4.   Deliverable Stage: BIDM Implementation Contract Stage III

31.45.   Reference #3710: The Contractor shall ensure MARs are available for retrieval through the reporting functionality within the BIDM.

31.45.1.   Contractor Approach: The Contractor shall use system administration and operational process monitoring methods to ensure that reporting tools are functioning properly and are available to users.

31.45.2.   Requirement Stage: BIDM Implementation Contract Stage II

31.46.   Reference #3711: The Contractor shall produce and submit to CMS the federally required T-MSIS/MSIS files.

31.46.1.   This includes but is not limited to the following functionality:

31.46.1.1.   Maintain data sets required for T-MSIS/MSIS reporting.

31.46.1.2.   Merge outside data sources into T-MSIS/MSIS data if required.

31.46.1.3.   Provide and maintain T-MSIS/MSIS data for adjudicated claims/encounters.

31.46.1.4.   Provide and maintain encounter data in appropriate claim(s) file.

31.46.1.5.   Conform to and maintain reporting requirements from T-MSIS/MSIS File Specifications and Data Dictionary document.

31.46.1.6.   Meet T-MSIS/MSIS submission and timeline reporting requirements.

31.46.1.7.   Securely transmit files.

31.46.2.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each file is produced.

31.46.3.   Any changes required by federal reporting requirements implemented after the Effective Date will be handled via the Change Management Process.

31.46.4.   Contractor Approach: The Contractor shall produce and submit to CMS the Federally required T-MSIS/MSIS files, as approved by the Department. The Contractor shall develop the reports using data available within the BIDM. This shall include, but is not limited to, the following functionality:

31.46.4.1.   Maintain data sets required for T-MSIS/MSIS reporting.

31.46.4.2.   Merge outside data sources into T-MSIS/MSIS data if required, following the Change Management Process if the outside data source is not a source of data to the BIDM Data Warehouse already required by this Contract.

31.46.4.3.   Provide and maintain T-MSIS/MSIS data for adjudicated claims/encounters.

31.46.4.4.   Provide and maintain encounter data in appropriate claim(s) file.

31.46.4.5.   Conform to T-MSIS/MSIS File Specifications and Data Dictionary.

31.46.4.6.   Meet T-MSIS/MSIS submission and timeline reporting requirements.

31.46.4.7.   Securely transmit files.

31.46.4.8.   Submit required test files

31.46.4.9.   Put data through the edit check program

31.46.4.10.   Work with CMS and the Department to resolve issues

31.46.5.   Deliverable: T-MSIS/MSIS Files

31.46.6.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

31.47.   Reference #3712: The Contractor shall provide the ability to modify and update the T-MSIS/MSIS files to report data for new populations and programs.

31.47.1.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each file is modified or updated.

31.47.2.   Any changes required by federal reporting requirements implemented after the Effective Date will be handled via the Change Management Process.

31.47.3.   Contractor Approach: The Contractor shall modify and update the T-MSIS/ MSIS files to report data for new populations and programs, using the most up-to-date federal reporting guidelines and following the Change Management Process if federal requirements change or if reporting for the new populations and programs requires new data to be added to the BIDM Data Warehouse.

31.47.4.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

31.48.   Reference #3713: Produce and securely submit the federally required T-MSIS/MSIS-like files per federal requirements associated with the CCT Program.

31.48.1.   The Contractor shall comply with the most up-to-date federal reporting guidelines at the time each file is produced and submitted.

31.48.2. Any changes required by federal reporting requirements implemented after the Effective Date will be handled via the Change Management Process.

31.48.3. Contractor Approach: The Contractor shall produce and securely submit the federally required T-MSIS/MSIS-like files per Federal requirements associated with CCT, using the most up-to-date federal reporting guidelines and following the Change Management Process if federal requirements change.

31.48.4. Deliverable: CCT Related T-MSIS/MSIS Files

31.48.5. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

31.49. Reference #3714: No later than fifteen (15) days prior to the federal due dates, the Contractor shall create, and provide to the end user as directed by the Department, universal data extracts for National Payment Error Rate Measurement (PERM) project, in accordance with most up to date specifications.

31.49.1. Contractor Approach: The Contractor shall create and provide to the end user, such as a Federal designee, universal data extracts for PERM project, in accordance with most up to date specifications, under the direction of the Department.

31.49.2. Deliverable: PERM Data Extracts

31.49.3. Deliverable Stage: BIDM Implementation Contract Stage II

31.50. Reference #3715: The Contractor shall ensure that the data in reports are current, accurate, and accessible and that the report is produced in a timely fashion to meet the report's delivery deadline.

31.50.1. Contractor Approach: The Contractor shall use system administration and operational process monitoring methods to ensure that reporting tools are functioning properly and are available to users. The Contractor shall ensure that the data in reports are current and accurate and the reports are produced on the specified timetable.

31.50.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

31.51. Reference #3716: The BIDM shall provide the ability to identify, track, and report unduplicated participants enrolled in 1915 (c), other waiver programs, and other long term care services and programs.

31.51.1. Contractor Approach: The Contractor shall enable the BIDM to produce reports that identify, track, and report unduplicated participants enrolled in 1915 (c), other waiver programs, and other long term care services and programs. The Contractor shall develop the reports using data available within the BIDM.

31.51.2. Requirement Stage: BIDM Implementation Contract Stage II

31.52. Reference #3717: The Contractor shall provide the ability to maintain Configurable parameters which will allow authorized BIDM users to specify data extraction criteria, report content, parameters and weighting factors necessary to properly identify aberrant situations.

31.52.1. This shall include the maintenance of statistical profiles that could be used for exception processing.

31.52.2. Contractor Approach: The Contractor shall deliver reporting tools with configurable templates and parameters to allow users to modify report content, formats, date ranges, weighting factors, and run instructions, as necessary to identify aberrant situations. The Contractor shall cause the tools to support and maintain statistical profiles for exception reporting.

31.52.3.   Requirement Stage: BIDM Implementation Contract Stage II

31.53.   Reference #3718: The Contractor shall provide the ability for authorized BIDM users to Configure communication delivery mechanism alerts and notifications for report delivery to Department staff and authorized BIDM users.

31.53.1.   Contractor Approach: The Contractor shall deliver reporting tools that enable users to configure communication of report results, including alerts to direct report notifications to other users.

31.53.2.   Requirement Stage: BIDM Implementation Contract Stage III

31.54.   Reference #3719: The Contractor shall provide the ability for authorized BIDM users to report on services clients have received and been authorized to receive, including the number of authorized units, such as services, dollar amounts, and frequencies, and the number of additional authorized services and units that remain.

31.54.1.   Contractor Approach: The Contractor shall enable the BIDM to be used to report on services clients have received and been authorized to receive, including the number of authorized units, such as services, dollar amounts, and frequencies, and the number of additional authorized services and units that remain. The Contractor shall develop the reports using data available within the BIDM.

31.54.2.   Requirement Stage: BIDM Implementation Contract Stage III

31.55.   Reference #3720: The Contractor shall provide the ability for authorized BIDM users to schedule, automate, and securely deliver or post static, ad hoc and user-defined reports to other authorized BIDM users.

31.55.1.   Contractor Approach: The Contractor shall deliver reporting tools that enable users to automate the scheduling of report production and to configure report processing to deliver report notifications to other users.

31.55.2.   Requirement Stage: BIDM Implementation Contract Stage III

31.56.   Reference #3721: The Contractors shall provide the ability to report on costs and cost trends, both past and present, of individuals or groups of clients, such as being able to compare costs and cost trends for all clients assigned to a case manager and case management agency.

31.56.1.   Contractor Approach: The Contractor shall enable the BIDM to produce reports on costs and cost trends, both past and present, of individuals or groups of clients, based on any element of data that is captured in the BIDM Data Warehouse.

31.56.2.   Requirement Stage: BIDM Implementation Contract Stage III

31.57.   Reference #3722:   The Contractor shall develop, document, maintain, and produce system generated reports that are automatically sent to authorized BIDM users when the number of participants enrolled in any program is approaching or exceeding the number of participants approved for the program, such as enrollment caps for HCBS waivers.

31.57.1.   Contractor Approach: The Contractor shall develop, document, maintain, and produce system generated reports that are automatically sent to authorized BIDM users when the number of participants enrolled in any program is approaching or exceeding the number of participants approved for the program, such as enrollment caps for HCBS waivers.

31.57.2.   Deliverable: Automated Participant Enrollment Reports

31.57.3.   Deliverable Stage: BIDM Implementation Contract Stage III

31.58. Reference #3723: The Contractor shall provide a methodology and shall develop, document, maintain, and provide reports to classify treatment modalities into peer group categories, by diagnosis or range of diagnosis codes.

31.58.1. The reports shall base diagnosis codes and ranges of diagnosis codes on ICD-9 or ICD-10 depending on the date of service.

31.58.2. These reports shall occur on a schedule as agreed upon and outlined in the Communication Management Plan.

31.58.3. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

31.58.4. Contractor Approach: The Contractor shall provide a methodology and shall develop, document, maintain, and provide reports to classify treatment modalities into peer group categories, by diagnosis or range of diagnosis codes. The Contractor shall enable the BIDM to classify diagnoses on ICD-9 or ICD-10 depending on the date of service.

31.58.5. Deliverable: Treatment Modality Methodology; Treatment Modality Reports

31.58.6. Deliverable Stage: BIDM Implementation Contract Stage III

32. PROGRAM INTEGRITY AND AUDIT TRACKING FUNCTIONALITY

32.1. Reference #3724: The Contractor shall provide the ability for authorized BIDM users to add records in the Claim Tracking Functionality, by uploading data, directly entering data, and querying data to populate the Claim Tracking Functionality.

32.1.1. Contractor Approach: The Contractor shall provide a COTS-based claims tracking solution that delivers historical load, batch update, online update, and query and reporting functionality. For the historical load, during implementation Contractor shall load the historical data from the Department's PI TCN Database into a dataset, such as the Claims Tracking Dataset. For subsequent updates, Contractor shall provide a process that will load the dataset to the Data Warehouse as frequently as daily with new transactions. The frequency of the update shall be able to be modified. This batch job shall add new records to the dataset and generate an automatic log and auditable exception report. To enable authorized users to enter and update data online, the Contractor shall assist the Department in the Department's development of a front-end data capture utility using a standard third-party data capture tool such as Microsoft Access that the Department will provide. The Contractor and the Department agree to refine this Approach during the Design Phase in order achieve the Department's business needs.

32.1.2. Requirement Stage: BIDM Implementation Contract Stage III

32.2. Reference #3725: The Contractor shall provide the ability for authorized BIDM users to add records in the Claim Tracking Functionality by uploading lists, direct entry, and query to populate.

32.2.1. Contractor Approach: The Contractor shall enable the Claim Tracking Functionality to permit authorized users to Add/Insert claims, including the ability to add records by uploading data and lists and directly entering data, and to query the uploaded data, subject to the development of a suitable front-end data capture utility as set forth in Exhibit C, Section 32.1.1.

32.2.2. Requirement Stage: BIDM Implementation Contract Stage II

32.3. Reference #3726: The Claim Tracking Functionality shall provide the ability to capture claim information on each record.

32.3.1. The claim information captured by the Claim Tracking Functionality shall include functionality, such as all of the following:

32.3.1.1. The claim identifier.

32.3.1.2. The line identifier.

32.3.1.3. Review characteristics, such as dates, reviewing entity, reviewer, purpose of review, and resolution.

32.3.1.4. The associated case within the Investigative Case Management tool.

32.3.1.5. Record flags.

32.3.1.6. Total recovered amount.

32.3.1.7. Interest on the claim.

32.3.1.8. Any penalties/sanctioned amounts.

32.3.2. Contractor Approach: The Contractor shall create a process that loads the data elements to the BIDM data warehouse for all required data that are entered into the front-end data capture utility as set forth in Exhibit C, Section 32.1.1. The specific data elements captured shall be determined during the Discovery and Requirements Validation/Requirements Elicitation Phase.

32.3.3. Requirement Stage: BIDM Implementation Contract Stage II

32.4. Reference #3727: The Contractor shall provide the ability for authorized BIDM users to flag records and to update values and select fields in the Claim Tracking Functionality.

32.4.1. Contractor Approach: The Contractor shall enable the Claim Tracking Functionality to permit authorized users to flag records and update values, subject to the development of a suitable front-end data capture utility as set forth in Exhibit C, Section 32.1.1.

32.4.2. Requirement Stage: BIDM Implementation Contract Stage III

32.5. Reference #3728: The Claim Tracking Functionality shall have the ability for authorized BIDM users, to query and report using System Tools.

32.5.1. Contractor Approach: The Claim Tracking Functionality shall have the ability for authorized BIDM users to query and report using System Tools.

32.5.2. Requirement Stage: BIDM Implementation Contract Stage II

32.6. Reference #3729: The Contractor shall provide an Investigative Case Management Tool that allows authorized BIDM users the capability to capture referrals from various sources involving potential fraud, waste, abuse, improper payment, and various Third Party Recoveries, such as Tort and Casualty and restitution.

32.6.1. Contractor Approach: Contractor shall deliver a system, such as the SAS ECM, to meet the requirements for an Investigative Case Management Tool. Contractor shall configure the system to capture essential data elements and values, such as referral number, date of referral, fiscal year and quarter, who made referral, date of claim, investigator, provider type, and target of investigation.

32.6.2. Requirement Stage: BIDM Implementation Contract Stage II

32.7. Reference #3730: The Contractor shall provide an Investigative Case Management Tool that allows authorized BIDM users to capture, store, track, and report on all actions, determinations, and

resolutions, such as suspension, termination, criminal/civil convictions, and recovered amounts, from referrals of potential fraud, waste, abuse, improper payment, and various Third Party Recoveries, such as Tort and Casualty, restitution and trust and trust recoveries, through final resolution.

32.7.1.   Contractor Approach: The Contractor shall provide an Investigative Case Management Tool that allows authorized users to capture, store, track, and report on the data needed to open, close, and manage cases of potential fraud, waste, abuse, improper payment, and third party liability, such as tort and casualty, restitution, trust, and trust recoveries. The Investigative Case Management Tool shall allow entry of all actions taken, from the beginning of the case to resolution and financial recovery, such as education, recovery, suspension, termination, or prosecution and conviction.

32.7.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.8.   Reference #3731: The Contractor shall provide an Investigative Case Management Tool that allows authorized BIDM users the capability to capture information and documentation.

32.8.1.   This information and documentation shall include all of the following:

32.8.1.1.   Information such as who made a referral, date of an alleged incident, a description of the incident, witnesses, who's performing investigation, type of provider information, target of investigation, referral number, date, Fiscal Year, and quarter.

32.8.1.2.   Electronic documentation, such as timesheets, letters from potential clients and medical records.

32.8.2.   Contractor Approach: The Contractor's Investigative Case Management Tool shall be configured to capture essential data elements and values including referral number, date of referral, fiscal year and quarter, who made referral, date of claim, investigator, provider type, and target of investigation. The Contractor's Investigative Case Management Tool shall enable the uploading of documentation and data in a variety of formats to support case management activities.

32.8.3.   Requirement Stage: BIDM Implementation Contract Stage II

32.9.   Reference #3732: The Contractor shall provide the ability for authorized BIDM users to update fields in the Investigative Case Management tool, based on role-based security.

32.9.1.   Contractor Approach: Contractor shall provide the ability for authorized BIDM users to update fields in the Investigative Case Management tool, based on role-based security.

32.9.1.1.   The architecture of the Investigative Case Management tool shall allow flexible configuration of tabs, screens, fields and attributes. Individual fields may be locked from editing or may be edited only by specific roles, such as a supervisor.

32.9.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.10.   Reference #3733: The Contractor shall provide an Investigative Case Management Tool that captures the decision and actions for defined data fields, activities, or tasks.

32.10.1.   Contractor Approach: The Contractor shall provide an Investigative Case Management Tool that enables users to view case data for a defined data field, activity or task. The Department shall be able to create custom workflows that are accessed by individuals and groups to report their activities and see decisions and actions taken by others working on a case.

32.10.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.11. Reference #3734: The Contractor shall provide an Investigative Case Management Tool that manages recoveries including, tracking payments received, payment plans, offsets, claim/encounter adjustments, settlements, restitutions, multiple payments and checks, amounts remaining due, due dates, court case numbers and jurisdiction, defendant name, recovery contractor payments, federal share calculations, bankruptcies and business status, such as if the entity is out of business.

32.11.1. Contractor Approach: The Contractor shall provide an Investigative Case Management Tool that shall be able to be configured to track overpayments received, payment agreements and plans, offsets and adjustments, settlements, restitution and remedial action, payments and check information, balances and due dates, court case information, RAC recoveries, federal share distribution, and business status including bankruptcies.

32.11.2. Requirement Stage: BIDM Implementation Contract Stage II

32.12. Reference #3735: The Contractor shall provide the ability for authorized BIDM users to query, analyze, and report on all data in the Investigative Case Management Tool using System Tools.

32.12.1. Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to query, analyze, and report on all data in defined fields using the reporting capabilities of the Investigative Case Management Tool.

32.12.1.1. Authorized users shall be able to create, edit, view and tailor reports on cases based on user permissions. Users shall be able to view interactive visual dashboards or generate files for audits, discovery, and other purposes.

32.12.2. Requirement Stage: BIDM Implementation Contract Stage II

32.13. Reference #3736: The Contractor shall provide an Investigative Case Management Tool that allows for the Configuration or Customization of windows and data fields.

32.13.1. Contractor Approach: The Contractor shall provide an Investigative Case Management Tool that enables configuration of tabs, screens, fields, and attributes. Different types of fields shall also be able to be created through configuration.

32.13.2. Requirement Stage: BIDM Implementation Contract Stage II

32.14. Reference #3737: The Contractor shall provide the ability for authorized BIDM user to search, sort, filter, and group by any field in the Investigative Case Management Tool.

32.14.1. Contractor Approach: The Contractor shall provide the ability for authorized BIDM users to search, select cases, sort, filter, and group by any indexed field in the Investigative Case Management Tool.

32.14.2. Requirement Stage: BIDM Implementation Contract Stage II

32.15. Reference #3738: The Contractor shall provide the ability for the Investigative Case Management Tool to not allow the editing of notes after those notes are finalized by an authorized BIDM user.

32.15.1. Contractor Approach: The Contractor shall provide the ability for the Investigative Case Management Tool to disallow the editing of notes after those notes are finalized by an authorized BIDM user.

32.15.1.1. Users shall have the ability to review changes made to selected fields at the subject level, incident level and case level. Also, individual fields shall be able to be locked from any editing, or may be edited only by specific roles, such as a supervisor.

32.15.2. Requirement Stage: BIDM Implementation Contract Stage II

32.16. Reference #3739: The Contractor shall provide the ability within the Investigative Case Management Tool to assign caseload "weights" to cases based upon difficulty or other criteria, such as complexity or priority, as defined by authorized BIDM users.

32.16.1. Contractor Approach: The Contractor shall provide an Investigative Case Management (ICM) Tool that uses policy settings, such as business rules, to assign a weight to a case based on difficulty or other criteria, such as complexity or priority. Priorities shall be able to be changed based on workflow.

32.16.1.1. Policies within the ICM Tool shall be able to cause pre-defined actions to be generated.

32.16.2. Requirement Stage: BIDM Implementation Contract Stage II

32.17. Reference #3740: The Contractor shall allow authorized BIDM users to submit requests to update BIDM profiles that initiate a workflow for the Department to approve, as necessary.

32.17.1. Contractor Approach: The Contractor shall provide an ICM Tool that allows authorized BIDM users to submit requests to update BIDM profiles that initiate a workflow for the Department to approve, as necessary. A tool, such as the SAS Workflow Studio within ECM, shall allow the use of business process logic to build various workflows for case management. Users shall be able to create multiple, configured workflows for various types of cases, such as targeted review, TPL, RAC, and tip line. They shall be able to classify cases, such as classifying by type, category or subcategory, and automatically route them to the right individuals or groups. The workflows shall ensure that all necessary investigative steps are taken by making the completion of specific workflow actions mandatory prior to moving the case to the next step in the investigative process.

32.17.2. Requirement Stage: BIDM Implementation Contract Stage II

32.18. Reference #3741: The Contractor shall provide the ability for authorized BIDM users to query and report on any and all data in the Investigative Case Management Tool.

32.18.1. Contractor Approach: ICM Tool users shall have the ability to create, edit, view and report on any and all data in indexed fields in the ICM Tool based upon user permissions.

32.18.2. Requirement Stage: BIDM Implementation Contract Stage II

32.19. Reference #3742: The Contractor shall provide the ability for the Investigative Case Management Tool to have an audit trail on each record, including notes, in the Investigative Case Management Tool, capturing changes by at least authorized BIDM user ID, and the date and time of the change.

32.19.1. Contractor Approach: The Contractor shall provide an ICM Tool that allows authorized users to generate audit records that contain the identification of the user, a time stamp, and the date when actions are performed on any case under investigation. An audit trail and window shall show any key changes, such as phone number, email address, physical address, or other changes.

32.19.2. Requirement Stage: BIDM Implementation Contract Stage II

32.20. Reference #3743: The Contractor shall provide an Investigative Case Management Tool that allows authorized BIDM users manage and assign responsibilities and tasks to other authorized BIDM users.

32.20.1. Contractor Approach: The Contractor shall provide an ICM Tool that enables authorized BIDM users to assign activities/tasks in the workflow to individuals or groups of users.

32.20.2. Requirement Stage: BIDM Implementation Contract Stage II

32.21. Reference #3744: The Contractor shall provide an Investigative Case Management Tool that allows for defined data fields to expand or minimize future fields, activities, or tasks based on a decision tree or skip patterns.

32.21.1. Contractor Approach: The Contractor shall provide an ICM Tool that allows flexible configuration of tabs, screens, fields and attributes. Through configuration, fields like weights, risk scores, claim fields, and financial metrics shall be able to be introduced into the case. Decision trees within the workflow can be defined so they only include required steps and data.

32.21.2. Requirement Stage: BIDM Implementation Contract Stage II

32.22. Reference #3745: The Contractor shall provide an automatic real time update process as tasks are completed.

32.22.1. Contractor Approach: Contractor shall provide an ICM Tool that enables users to update cases and save changes in real time. The ICM Tool shall also contain an automatic update process.

32.22.2. Requirement Stage: BIDM Implementation Contract Stage II

32.23. Reference #3746: The Contractor shall create work items in workflow as a result of automated alerts when defined changes occur by an authorized BIDM user within the Investigative Case Management Tool, such as when a referral is made or action on a referral is declined or accepted.

32.23.1. Contractor Approach: The Contractor shall provide an ICM Tool enabling users to classify cases by type, category, and subcategory, and generate workflows. The ICM Tool shall be able to automatically generate alerts and will route cases to specified individuals or groups for appropriate action/task completion. The Contractor shall define and establish workflows, based on information from and as approved by the Department.

32.23.2. Requirement Stage: BIDM Implementation Contract Stage II

32.24. Reference #3747: The Contractor shall provide an Investigative Case Management Tool that allows users to establish, define and automate alerts.

32.24.1. Contractor Approach: The Contractor shall provide an ICM Tool that allows users to establish, define, and automate alerts. Notifications shall be able to be sent via email or text message. Users shall be able to specify what types of events they want to receive notifications about and how and when notifications are sent to them.

32.24.2. Requirement Stage: BIDM Implementation Contract Stage II

32.25. Reference #3748: The Contractor shall provide the ability to modify the user interface, within the Investigative Case Management Tool, for different authorized BIDM users, such as Department Program Integrity staff or a Third Party recovery agent, through Configuration or Customization.

32.25.1. Contractor Approach: The Contractor shall provide an ICM Tool with a configurable user interface that can adapt to various user types, such as PI investigator, TPL staff or an attorney. Reports and dashboards shall be able to be designed based on user type and individual user. Users shall be able to classify cases, such as classifying by type, category or subcategory, and automatically route them to the right individuals or groups.

32.25.2. Requirement Stage: BIDM Implementation Contract Stage II

32.26. Reference #3749: The Contractor shall provide an Investigative Case Management Tool that allows for workflow of actions and assignments between authorized BIDM users to be Configurable.

32.26.1.   Contractor Approach: The Contractor shall provide an ICM Tool that supports the creation of multiple, configured workflows for the various types of cases common to the Department. The BIDM shall automatically route cases for action to designated individuals or groups.

32.26.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.27.   Reference #3750: The Contractor shall provide an Investigative Case Management Tool that allows for the Configuration or Customization of windows, data fields, and decision tree.

32.27.1.   Contractor Approach: The Contractor's ICM Tool shall allow for the configuration of windows, data fields, and decision trees.   Workflows shall be able to be defined based on complex control logic and functionality. Through configuration, different types of fields like weights, risk scores, shall be able to be incorporated into different types of cases. Configuration of the user interface shall allow conditional logic and dynamic functionality to be implemented, as well.

32.27.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.28.   Reference #3751: The Contractor shall provide an Investigative Case Management Tool that allows for the Configuration of decision trees or skip patterns.

32.28.1.   Contractor Approach: Contractor shall allow for workflows in the ICM Tool to be defined based on complex control logic and functionality. Decision trees within the workflow shall be able to be defined based on required steps and data. Through configuration, different types of fields like weights, risk scores, shall be able to be incorporated in the case.

32.28.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.29.   Reference #3752: The Contractor shall provide authorized BIDM users the ability to monitor, intervene in and resolve rules based actions or unexpected failures.

32.29.1.   This ability shall include, but is not limited to, all of the following:

32.29.1.1.   Ability for the BIDM to display and to generate "pull lists" or "to-do" lists.

32.29.1.2.   Ability to transfer "pull lists" and "to-do" tasks to other authorized BIDM users.

32.29.1.3.   Ability for a business user to create system rules to route issues.

32.29.1.4.   Ability to keep a diary or log of the investigations into the actions, and their resolutions.

32.29.1.5.   Ability to track resolutions over time to identify trends and patterns.

32.29.1.6.   Ability for management to monitor the workflow duration and caseload volume of the reviewers and others in the edit workflow process.

32.29.1.7.   Ability for reviewers to assign tasks and reminders to other authorized BIDM users.

32.29.1.8.   Ability to report on reviewer assignments and workloads.

32.29.2.   Contractor Approach: Contractor's ICM tool shall allow authorized ICM Tool users, using the Department's rules, to perform tasks including:

32.29.2.1.   Generate "pull lists" or "to-do" lists, and transfer them to other users.

32.29.2.2.   With proper authority, create system rules, such as new workflows.

32.29.2.3.   Log actions and resolutions.

32.29.2.4.   Track and report on cases, open and closed, and their resolutions to identify trends and patterns over time.

32.29.2.5.	Monitor the workflow duration and caseload volume of the reviewers and others in the workflow process.

32.29.2.6.	Assign tasks and reminders to other users.

32.29.2.7.	Report on reviewer assignments and workloads.

32.29.3.	Requirement Stage: BIDM Implementation Contract Stage II

32.30.	Reference #3753: The Contractor shall automatically and securely route grievances and appeal requests to the authorized BIDM users or user groups for multiple levels of review, per business rules.

32.30.1.	Contractor Approach: Contractor shall provide an ICM Tool that allows correspondence received on a case to be attached to the case and incorporated into the case workflow. When grievances and appeals become part of the case, the workflow shall be able to be configured to automatically route cases to designated individuals or groups for multiple levels of review, in accordance with workflow rules.

32.30.2.	Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

32.31.	Reference #3754: The Contractor shall provide the ability for authorized BIDM users to enter free-form text notes for associated case. Each case shall allow for multiple notes for each case.

32.31.1.	At a minimum, each case shall allow for one-thousand (1,000) notes with at least ten-thousand (10,000) characters available for each note.

32.31.2.	Contractor Approach: The Contractor shall provide an ICM Tool enabling users to add more than one-thousand (1,000) notes with over ten-thousand (10,000) characters per note and attach documents, video files and other digital media to a case.

32.31.3.	Requirement Stage: BIDM Implementation Contract Stage II

32.32.	Reference #3755: The Contractor shall provide the ability within the Investigative Case Management Tool to support supervisory functions for workflow management, such as prioritization, delegation and re-routing.

32.32.1.	Contractor Approach: The Contractor's ICM Tool shall enable supervisory functions for workflow management, such as prioritization, delegation and re-routing. Supervisors shall be able to make completion of specific workflow actions mandatory prior to moving the case to the next step in the investigation process, including supervisory review. The Contractor's ICM Tool shall manage workflows and cases by allowing supervisors and managers to change priorities, delegate tasks and responsibilities, and re-route cases.

32.32.2.	Requirement Stage: BIDM Implementation Contract Stage II

32.33.	Reference #3756: The Contractor shall provide the ability within the Investigative Case Management Tool to provide Department access to workflow monitoring that includes indicators and statistics by sub process, organization, or individual staff.

32.33.1.	Contractor Approach: The Contractor shall provide an ICM Tool with dashboard and workflow monitoring capability to enable managers to analyze operational performance of investigative functions and recognize trends, to improve oversight and governance of each process and sub-process in the workflow, the investigating group, or the individual investigator.

32.33.2.	Requirement Stage: BIDM Implementation Contract Stage II

32.34.   Reference #3757:   The Contractor shall provide the ability within the Investigative Case Management Tool to create automated workflows that route and assign cases to the appropriate staff.

32.34.1.   Contractor Approach: Contractor shall provide an ICM Tool that allows authorized users to create multiple workflows for various types of cases to be worked and have cases automatically routed to designated individuals or groups.

32.34.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.35.   Reference #3758:   The Contractor shall provide an Investigative Case Management Tool that assigns a unique identifier to each case.

32.35.1.   Contractor Approach: The Contractor's ICM Tool shall assign a unique numerical or alpha-numeric identifier to cases, which ensures a single and unambiguous view of all case information. Users shall be able to classify cases by type, category and subcategory. The BIDM shall be able to set default fields and values on screens based on case type.

32.35.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.36.   Reference #3759: THIS REQUIREMENT INTENTIONALLY DELETED

32.37.   Reference #3760: THIS REQUIREMENT INTENTIONALLY DELETED

32.38.   Reference #3761: The Contractor shall provide the ability for authorized BIDM users to query and report using Surveillance, Utilization and Review System (SURS) data.

32.38.1.   Contractor Approach: The Contractor shall provide a tool, such as Advantage Suite, for SURS querying and reporting. This tool shall provide two types of standard, pre-defined SURS report templates: rankings and summary profiles. The standard templates shall meet current federal certification requirements. In addition to the standard SURS templates, SURS users shall have access to other healthcare-intelligent reports and features of the tool, including trend reports, top provider reports, high-cost patients and member profiles, among others. Ad hoc report design tools of the tool shall also be available to SURS users.

32.38.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.39.   Reference #3762: The Contractor shall develop, document, maintain, and provide comprehensive statistical profiles of health care delivery and utilization patterns by provider, provider practice and provider peer groups by select criteria, such as categories of services, client demographics, use of covered types of services/items, prescribed drugs and referrals to specialty care, in conjunction with the Department.

32.39.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for specified providers and peer groups for any specified timeframe. Prompts shall be defined when the reports are developed.

32.39.2.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

32.39.3.   Contractor Approach: The Contractor shall provide a tool, such as Advantage Suite, to develop, document, maintain, and provide profiles of health care delivery and utilization patterns. The tool shall enable users to analyze rendering, ordering, and billing practices to generate comprehensive statistical profiles highlighting aberrant utilization and/or billing patterns. The tool shall enable users to create profiles that compare providers to standard peer groups. These profiles shall be available for all categories of service and provider types.

32.39.4.   Deliverable: Provider Health Care Delivery and Utilization Statistical Profiles

32.39.5.   Deliverable Stage: BIDM Implementation Contract Stage II

32.40.   Reference #3763: The Contractor shall develop, document, maintain, and provide comprehensive statistical profiles of health care delivery and utilization patterns by client and client peer groups by select criteria, such as categories of services, provider type, health plan, use of covered types of services/items, prescribed drugs and referrals to specialty care in conjunction with the Department.

32.40.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for specified providers and peer groups for any specified timeframe. Prompts shall be defined when the reports are developed.

32.40.2.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

32.40.3.   Contractor Approach: The Contractor shall provide a tool, such as Advantage Suite, for profiles and patterns by client and client peer groups. This tool shall support comprehensive statistical profiling of healthcare utilization patterns by clients. The tool shall be able to generate reports that profile beneficiaries against their peers using any attribute or combination of attributes available in the database, whether demographic or claims-based.

32.40.4.   Deliverable: Client Health Care Delivery and Utilization Statistical Profiles

32.40.5.   Deliverable Stage: BIDM Implementation Contract Stage II

32.41.   Reference #3764: The Contractor shall provide the ability for authorized BIDM users to identify, access, and extract data utilized in SURS generated reports.

32.41.1.   Contractor Approach: The BIDM, through tools such as Advantage Suite, shall generate reports as needed. The BIDM shall deliver multi-dimensional, flexible standard and ad hoc reporting capabilities for claims analysis, SURS, and fraud detection. These capabilities shall include a multitude of standard report templates, which are easily configured to the needs of individual users.

32.41.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.42.   Reference #3765: The BIDM shall apply weighting and ranking of exception report items to facilitate identifying the highest deviators.

32.42.1.   Contractor Approach: The BIDM, through tools such as the Advantage Suite system, shall maintain a process to apply weighting and ranking of exception report items to facilitate identifying the highest deviators. Exception weights for each measure shall be able to be assigned on a report-by-report basis, allowing them to be configured for each peer group. The weights and measures shall be able to be combined into an overall, composite score. Weights shall also be able to be summed for each reporting period to compute a total score for each individual.

32.42.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.43.   Reference #3766: The BIDM shall provide the ability for authorized BIDM users to transfer data utilized in SURS generated reports to the Sandbox.

32.43.1.   Contractor Approach: The BIDM, through tools such as the Advantage Suite system, shall enable authorized users to extract data from the data mart and load the data into the Sandbox. These tools shall provide multiple methods besides SUR-generated reports to export query and report results.

32.43.1.1.   These methods shall include, but are not limited to:

32.43.1.1.1.   Large Data Extract, for large data sets.

32.43.1.1.2.   Report Result Exports, for formatted report exports.

32.43.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.44.   Reference #3767: The BIDM shall provide the ability for authorized BIDM users to use System Tools to query and report on data associated with SURS generated reports.

32.44.1.   Contractor Approach: The BIDM, through tools such as the Advantage Suite system, shall allow users to query all data elements used to generate SURS reports and to generate reports as needed. The system shall have available multi-dimensional, standard and ad hoc reporting capabilities for claims analysis, including SURS. These capabilities shall include a set of standard report templates.

32.44.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.45.   Reference #3768:   The BIDM shall provide the ability for authorized BIDM users to apply weighting and ranking of exception report items to facilitate identifying the highest deviators.

32.45.1.   Contractor Approach: The BIDM, through tools such as the Advantage Suite system, shall support a process to apply weighting and ranking of exception report items to facilitate identifying the highest deviators. Exception weights for each measure shall be able to be assigned on a report-by-report basis, allowing them to be configured for each peer group. The weights and measures shall be able to be combined into an overall, composite score. Weights shall also be able to be summed for each reporting period to compute a total score for each individual.

32.45.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.46.   Reference #3769: The BIDM shall provide the ability to produce profiling reports for any service entity, as defined by the Department, to demonstrate items such as case-mix and expenditures.

32.46.1.   Contractor Approach: The BIDM, through tools such as the Advantage Suite system, shall provide the capability to profile individual providers, provider groups, and any custom-defined group of providers for analysis and reporting purposes for which the Department has data/data elements to identify and/or distinguish the group(s). Users shall be able to develop profile or exception reports showing either summary or line-item detail information for all types of providers, by patients within group practices, and individual providers within a group practice.

32.46.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.47.   Reference #3770: Via the provided SURS, the Contractor shall produce, document, maintain, and compile all federal, state, and Department required SURS reports.

32.47.1.   Contractor Approach: Using data available within the BIDM, the Contractor shall produce, document, maintain, and compile federal, state, and Department-required SURS reports. The BIDM, through tools such as the Advantage Suite system, shall include a number of standard outlier reports, which Contractor shall use as templates to begin the process of designing custom reports. The new SURS reports shall replace but not necessarily replicate the existing legacy reports.

32.47.2.   Deliverable: SURS Reports

32.47.3.   Deliverable Stage: BIDM Implementation Contract Stage II

32.48.   Reference #3771: The Contractor shall migrate the historical SURS data and information in the Legacy System into the SURS that is part of the BIDM established under this Contract.

32.48.1.   Contractor Approach: The Contractor shall migrate historical data from the new Core MMIS and PBMS into the BIDM SURS as a function of Contractor's DDI Data Conversion Phase activities. Contractor shall also identify the historical SURS data and information important to SUR users that is not supported by the Core MMIS and PBMS data migration, based on information from the Department. During joint design meetings, the Contractor shall identify options for the migration and consolidation of this historical SUR data and information. The Contractor shall then implement the design option that has been identified as possible and the Department has selected as preferable.

32.48.2.   Contractor shall include the required data in the BIDM.

32.48.3.   Requirement Stage: BIDM Implementation Contract Stage II

32.49.   Reference #3772: The BIDM shall provide the ability for authorized BIDM users to designate the parameters via prompt based functionality to generate SURS reports.

32.49.1.   Contractor Approach: The BIDM, through tools such as the Advantage Suite system, shall provide menus and catalogs from which users can designate the reporting parameters of interest. Menus, reporting choices, pathways, and subsets shall be based on common healthcare business logic.

32.49.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.50.   Reference #3773: The Contractor shall develop, document, maintain, and provide prescriber and pharmacy provider profiles and management reporting per Department specifications.

32.50.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for specified providers for any specified timeframe. Prompts shall be defined when the reports are developed.

32.50.2.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

32.50.3.   Contractor Approach: The Contractor shall develop, document, maintain, and provide statistical profiles of pharmacy providers as well as reports about the prescribing patterns of physicians and other drug-ordering providers. The BIDM, through tools such as the Advantage Suite, shall report rank, weight, and score providers for identification of aberrant utilization and/or billing patterns. The BIDM shall have capabilities for creating profiles that compare providers to standard peer groups as well as across peer groups. These profiles shall be available for all categories of service. They can be modified by users to define new peer groups or to change other parameters for reporting.

32.50.4.   Deliverable: Prescriber and Pharmacy Provider Profiles and Management Reports

32.50.5.   Deliverable Stage: BIDM Implementation Contract Stage III

32.51.   Reference #3774: The Contractor shall maintain current and historical information on professional relationships furnished by providers to other entities, such as groups, managed care entities, chains, networks, ownerships, and partnerships, and managing employees, between individual providers, practices and billing organizations, within the BIDM.

32.51.1.   Contractor Approach: The Contractor shall maintain current and historical information on professional relationships furnished by providers to other entities, such as groups, managed care

entities, chains, networks, ownerships and partnerships, and managing employees; and between individual providers, practices, and billing organizations. The Contractor shall also operate social network software, such as software from the IBM ® i2® family of fraud investigation solutions.

32.51.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.52.   Reference #3775: The BIDM shall allow the capitation claims/encounters to be associated with the reconciliation status.

32.52.1.   Contractor Approach: The Contractor shall implement processes to associate capitation claims/encounters with the reconciliation status. The Contractor's process for building both the data warehouse and other tools within the BIDM shall support investigative activities in both FFS and managed care. The Department shall be able to analyze, with accuracy, services performed and not performed, and shall be able to rely on the data reported for fully and partially capitated rates.

32.52.2.   Requirement Stage: BIDM Implementation Contract Stage III

32.53.   Reference #3776: The BIDM shall provide the ability to produce Third Party Liability (TPL) data and/or cost avoidance reporting as required by State and federal rules and regulations.

32.53.1.   Contractor Approach: The BIDM shall produce reports on opportunities to pursue recovery from liable third parties, configurable to the Department's requirements. The BIDM shall be able to capture the relevant data and help to improve cost avoidance. The BIDM shall link data so that users may perform accurate analysis of the bottom-line results of recovery work.

32.53.2.   Requirement Stage: BIDM Implementation Contract Stage II

32.54.   Reference #3777: The BIDM shall provide the ability for authorized BIDM users to query and report on data relevant to TPL, recoveries, and hospital costs settlements.

32.54.1.   Contractor Approach: The BIDM shall produce reports on opportunities to pursue recovery from liable third parties. The BIDM data warehouse shall be capable of storing data fed from hospital cost settlement reports. Contractor shall provide tools, such as Cognos tools, that allow users to design reports on the result of cost settlement activity, to enhance information about costs avoided.

32.54.2.   Requirement Stage: BIDM Implementation Contract Stage III

32.55.   Reference #3778: The BIDM shall store and link to the distinct claim and claim line payments, recoveries, and offset tracking details such as warrant numbers, EFT numbers, warrant status, supplied by the CORE Interface.

32.55.1.   Contractor Approach: Contractor shall design the BIDM to store and link to the distinct claim and claim line payments, recoveries, and offset tracking details such as warrant numbers, EFT numbers, warrant status, supplied by the CORE Interface. The data warehouse shall interface directly with CORE and capture from it the data useful in measuring recoveries, including offsets and associated details such as warrant numbers, EFT numbers, and warrant status.

32.55.2.   Requirement Stage: BIDM Implementation Contract Stage II

33. PROJECT MANAGEMENT

33.1.   Reference #3779: The Contractor shall work cooperatively with all Department, State staff, federal partners, and other State and federal contractors to ensure success of this Contract.

33.1.1.   In addition, the Contractor shall identify efficiencies for the Department that could be leveraged by altering requirements, changing functionality, adapting business processes, or making other changes to the architecture or overall solution.

33.1.2.   Contractor Approach: The Contractor shall work cooperatively with the Department and its business partners, such as state agencies, federal partners, and other state and federal contractors, to ensure the success of the Contract. In addition, the Contractor shall identify efficiencies for the Department that it can leverage by altering requirements, changing functionality, adapting business processes, or making other changes to the architecture or overall solution.

33.1.3.   Requirement Stage: BIDM Implementation Contract Stage II

33.2.   Reference #3780: During the Initiation and Planning Phase, the Contractor shall develop, in accordance with the Project Management Institute's standards contained in PMBOK, a Change Management Plan that addresses and defines processes for managing changes to the project.

33.2.1.   These processes shall include, but are not limited to, the processes to do all of the following:

33.2.1.1.   Establish a process to manage Change Requests.

33.2.1.2.   Changes in the scope of work.

33.2.1.2.1.   Any change in the scope of work that requires additional funding beyond that shown in this Contract or explicitly modifies a requirement contained in this Contract shall also require a formal amendment or Option Letter to this Contract.

33.2.1.3.   Changes in business process definition.

33.2.1.4.   Changes in federal or State regulatory change support.

33.2.1.5.   Changes to the budget and procurement activities.

33.2.1.6.   Changes in Configuration and Customization, including Configuration Management as defined in industry terms. This requirement shall be fulfilled in the Configuration Management Plan.

33.2.1.7.   Schedule for routine BIDM maintenance and upgrading BIDM software.

33.2.1.8.   Changes in training needs.

33.2.1.9.   Changes in data policy and governance.

33.2.1.10.   Changes in BIDM operations.

33.2.2.   The Contractor shall obtain Department review and approval of the Change Management Plan and materials and any subsequent updates prior to use. The Change Management Plan shall be implemented once approved and the Contractor shall adhere to the processes included in the plan.

33.2.3.   Contractor Approach: The Contractor shall develop a Change Management Plan that addresses and defines processes for managing change. The Contractor shall also carry this plan forward into the BIDM Ongoing Operations and Enhancements Stage. The Contractor shall obtain Department approval of the Change Management Plan and, once implemented, shall adhere to the processes included in the plan.

33.2.4.   Deliverable: Change Management Plan

33.2.5.   Deliverable Stage: BIDM Implementation Contract Stage II

33.3. Reference #3781: The Contractor shall organize and facilitate Contract status meetings in person or by telephone/video conference call, as approved by the Department, to review status reports.

33.3.1. The Contractor shall be responsible for providing agenda, minutes, the meeting space and conference line/virtual meeting place for the Department and the Contractor.

33.3.2. Contractor Approach: The Contractor shall meet with the Department to discuss and formulate the methods that the organizations will use to report status and exchange information. Project communication methods and protocols shall be defined and roles, responsibilities, and communication channels shall be clearly established. The Contractor shall organize and facilitate status meetings in person or by telephone/video conference call, as approved by the Department, to review status reports. The Contractor shall provide agenda, minutes, meeting space, and conference line/virtual meeting place for all parties as needed.

33.3.3. Requirement Stage: BIDM Implementation Contract Stage II

33.4. Reference #3782: The Contractor shall ensure that Contractor staff attending applicable meetings between the Department and the Contractor have the authority to represent and commit the Contractor regarding Work performed under the Contract.

33.4.1. Contractor Approach: The Contractor shall ensure that Contractor staff attending applicable meetings between the Department and the Contractor have the authority to represent and commit the Contractor regarding Work performed under the Contract.

33.4.2. Requirement Stage: BIDM Implementation Contract Stage II

33.5. Reference #3783: The Contractor shall manage all aspects of the Contract that affect price, schedule, performance, including both scope and quality, risk/issues/opportunities, and applicable resources.

33.5.1. The Contractor shall provide transparency into its management plans and execution. The Department expects an approach such that "if the Contractor sees it, the Department sees it" to minimize asymmetric understanding of the Contract status.

33.5.2. Contractor Approach: The Contractor shall manage all aspects of the Contract that affect price, schedule, performance, including scope and quality, risk/issues/opportunities, and applicable resources. The Contractor shall direct and control all aspects of the Contract that affect price, schedule, performance, scope, quality, risks, and resources. The Contractor shall foster a partnership and a culture of mutual trust with the Department and provide transparency in its activities, plans, service levels, and performance.

33.5.3. Requirement Stage: BIDM Implementation Contract Stage II

33.6. Reference #3784: The Contractor shall develop, support, report, such as through the use of dashboards, and provide, project management reports, at least weekly or as described in the Communication Management Plan, on the status of the project activities to allow both the Contractor and the Department to assess the progress for the BIDM during the Project Phases.

33.6.1. Contractor Approach: The Contractor shall develop, support, report, and provide project management reports, at least weekly or as described in the Communication Management Plan, on the status of project activities, allowing both the Contractor and the Department to assess progress. The Contractor shall provide reporting on all aspects of the Contract that affect price, schedule, performance, scope, quality, risks and mitigation activities, issues, opportunities, and resources. The Contractor shall report on the status of all active BIDM enhancements or projects.

33.6.2.	Deliverable: Project Management Reports

33.6.3.	Deliverable Stage: BIDM Implementation Contract Stage II

33.7.	Reference #3785: The Contractor shall provide reporting on all aspects of the Contract that affect price, schedule, performance, including both scope and quality, risk/ issues/ opportunities, and applicable resources, as defined by the Communication Management Plan.

33.7.1.	Contractor Approach: The Contractor shall provide reporting on all aspects of the Contract that affect price, schedule, performance, including both scope and quality, risk/issues/opportunities, and applicable resources, as defined by the Communication Management Plan.

33.7.2.	Deliverable: Performance Reports

33.7.3.	Deliverable Stage: BIDM Implementation Contract Stage II

33.8.	Reference #3786: The Communication Management Plan shall include a Contract Management report.

33.8.1.	The Contract Management Report, which shall be the same as the monthly status report, shall include, but is not limited to, all of the following:

33.8.1.1.	Progress toward achieving goals stated in the ABP.

33.8.1.2.	Activities, by each function or unit of the Contractor organization, such as system interfaces analytics, design and architecture.

33.8.1.3.	Achievement of performance standards for the previous month and identification of all performance standards that were not met.

33.8.1.4.	A summary of Contractor activities and key volume indicators, for the month and cumulative to the fiscal year end.

33.8.1.5.	Establishing the Quarterly Milestones and monthly reports on those Quarterly Milestones.

33.8.1.6.	Establishing the Dispute Process trigger mechanism, including the process to submit an item for resolution via the dispute process via letter or e-mail, and monthly reports relating to the Dispute Process.

33.8.1.7.	Other activities necessary for the Department to monitor Contractor activities.

33.8.2.	The Contractor shall produce and deliver the Contract Management Report as agreed to and outlined in the Communication Management Plan.

33.8.3.	Contractor Approach: The Communication Management Plan shall include a Contract Management report. The Contractor shall work closely with the Department to determine the optimal content of this report.

33.8.4.	Deliverable: Contract Management Report

33.8.5.	Deliverable Stage: BIDM Implementation Contract Stage II

33.9.	Reference #3787: The Contractor shall participate in COMMIT project status meetings that occur with other contractors working on the COMMIT project, in person or by telephone/video conference call, as approved by the Department, to review status reports.

33.9.1.	Contractor Approach: The Contractor shall participate in BIDM project status meetings with other COMMIT contractors to review status reports. This participation may be in-person or via conference call.

33.9.2.   Requirement Stage: BIDM Implementation Contract Stage II

33.10.   Reference #3788: The Contractor shall automate the Project Control and Issue Tracking process by providing a role based change management software that can be accessed by the Department as well as Contractor staff.

33.10.1.   Contractor Approach: The Contractor shall develop a Project Control and Issue Reporting System. The Contractor and the Department will use this system for tracking issues and reporting their status and resolution. The Contractor shall use a document management system, such as its SharePoint environment, to support this management function and to provide the forms, tracking, and reporting capabilities needed for change and issue management.

33.10.2.   Deliverable: Role Based Change Management Software

33.10.3.   Deliverable Stage: BIDM Implementation Contract Stage II

33.11.   Reference #3789: The Contractor shall identify and resolve BIDM problems.

33.11.1.   This shall include, but is not limited to, all of the following:

33.11.1.1.   The documentation of BIDM problems, their resolutions, and their impacts.

33.11.1.2.   Maintenance of all historical records associated with all BIDM problems.

33.11.2.   The Contractor shall provide all documentation to Department in searchable, electronic, readily accessible format, such as through issue tracking software.

33.11.3.   Contractor Approach: The Contractor shall identify, control, and resolve problems that may arise in systems, processes, services, data, and reports. The Contractor shall use a system, such as its SharePoint-based Project Control and Issue Reporting System, for tracking issues and reporting their status and resolution. The Contractor shall execute an issue management process that identifies documents, analyzes, and supports the resolution of issues. This process shall include documentation of system problems, their resolutions, and their impacts as well as maintain historical records associated with BIDM problems. This system shall provide the BIDM with issue documentation in a searchable, electronic, readily accessible format. These requirements shall be addressed in the System Test Plan.

33.11.4.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

33.12.   Reference #3790: During the Operations and Maintenance Phase, the Contractor shall provide comprehensive end user and System Administrative documentation based on authorized BIDM user roles.

33.12.1.   Contractor Approach: The Contractor shall develop and maintain end user and System Administrative documentation. This documentation shall be based on authorized BIDM user roles and will be provided during the Operations and Maintenance Phase.

33.12.2.   Deliverable: End User and System Administrative Documentation

33.12.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

33.13.   Reference #3791: The Contractor shall support the Department in all testing activities by providing support staff, technical expertise, and the tools required to perform the testing and shall track activities, outcomes, and test results.

33.13.1.   Contractor Approach: The Contractor shall support the Department in testing activities by providing support staff, technical expertise, and the tools required to perform the testing. The

Contractor shall provide a test management system that the Department may use for its tracking of activities, outcomes, and test results.

33.13.2. Requirement Stage: BIDM Implementation Contract Stage II

33.14. Reference #3792: The Contractor shall gather report requirements from the Department and other stakeholders, as directed by the Department.

33.14.1. Contractor Approach: The Contractor shall gather report requirements from the Department and other stakeholders, as directed by the Department.

33.14.2. Requirement Stage: BIDM Implementation Contract Stage II

33.15. Reference #3793: The Contractor shall gather business needs from the Department and its designees, as directed by the Department.

33.15.1. Contractor Approach: The Contractor shall gather business needs from the Department and its designees as directed by the Department.

33.15.2. Requirement Stage: BIDM Implementation Contract Stage II

33.16. Reference #3794: As defined in the Configuration Management Plan, the Contractor shall develop, maintain, and submit for Department approval all SDLC documentation, including all requirements, test planning, technical specifications, UAT, test results, post-implementation verifications, data conversion, strategy, and systems documentation.

33.16.1. The Contractor shall provide all materials in searchable, indexed, electronic, readily accessible formats that are available to Department staff without Contractor assistance. The Contractor shall provide materials in other media formats upon Department request.

33.16.2. Contractor Approach: The Contractor shall develop, maintain, and submit all SDLC documentation, including all requirements, test planning, technical specifications, UAT, test results, post-implementation verifications, data conversion, strategy, and systems documentation. The Contractor shall provide all materials in searchable, indexed, electronic, readily accessible formats that are available to Department staff without Contractor assistance. It shall provide materials in other media formats upon the Department's request.

33.16.2.1. The Contractor shall support this function using a project management environment, such as its SharePoint project management environment. This environment shall allow authorized users to upload, download, and "check out" documents within a management system that logs users' activities and dates. Security functions shall enable protection of library contents and version control.

33.16.3. Deliverable: Stage: BIDM Implementation Contract Stage II

33.17. Reference #3795: The Contractor shall meet with the Department on the status of all active System Enhancements or projects as defined in the Communication Management Plan.

33.17.1. Contractor Approach: The Contractor shall use written status reports and status meetings to provide system enhancement status information, as defined in the Communication Management Plan. The frequency, method and content of enhancement status reporting shall be jointly defined and adhere to the Communication Management Plan.

33.17.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

33.18. Reference #3796: The Contractor shall not implement any System Tools in the BIDM prior to receiving Department approval of those System Tools.

33.18.1.	Contractor Approach: The Contractor shall ensure that all products and System Tools receive Department approval prior to implementation.

33.18.2.	Requirement Stage: BIDM Implementation Contract Stage II

33.19.	Reference #3797: The Contractor shall not implement any Configuration or Customization to any System Tools in the BIDM prior to receiving Department approval of those Configurations or Customizations.

33.19.1.	Contractor Approach: The Contractor shall ensure all product and tool configuration and customization receive Department approval prior to implementation.

33.19.2.	Requirement Stage: BIDM Implementation Contract Stage II

33.20.	Reference #3798: The Contractor shall not implement any COTS products in the BIDM prior to receiving Department approval of those COTS products.

33.20.1.	Contractor Approach: The Contractor shall ensure that all COTS products receive Department approval prior to implementation.

33.20.2.	Requirement Stage: BIDM Implementation Contract Stage II

33.21.	Reference #3799: The Contractor shall provide all necessary software to support Transmittals and the process the Contractor and Department will use to submit, review, and approve Transmittals.

33.21.1.	Contractor Approach: The Contractor shall provide all necessary software to support transmittals and the process Department and Contractor will use to submit, review, and approve transmittals.

33.21.2.	Requirement Stage: BIDM Implementation Contract Stage II

33.22.	Reference #3800: The Contractor's project management software shall be compatible with the Department's project management software.

33.22.1.	Contractor Approach: The Contractor shall use an environment, such as a SharePoint project management environment, to support data exporting and importing. Should the Department need to exchange data between the BIDM environment and its project management systems, the environment shall be used to establish this interface. This import/export function represents functional compatibility between these systems

33.22.2.	Requirement Stage: BIDM Implementation Contract Stage II

34. DELIVERABLE REQUIREMENTS

34.1.	Reference #3801: The Contractor shall assist Department staff in responding to all federal and State auditing agencies, including pulling sampling frames and samples.

34.1.1.	This level of support shall also be provided to all other State and federal audit agencies' designees.

34.1.2.	Contractor Approach: The Contractor shall assist the Department staff in responding to all federal and State auditing agencies, including pulling sampling frames and samples. The Contractor shall provide the analytic support needed to augment the Department's work or to perform analytic work on the Department's behalf, as directed by the Department. The Contractor shall support this function, using the processes detailed within the Communication Management Plan.

34.1.3.	Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

34.2.   Reference #3802: On an annual basis, the Contractor shall prepare a Business Plan for Department review and approval.

34.2.1.   The Contractor shall include Department staff in initial planning activities.

34.2.2.   The Business Plan shall be a working long-term document that describes how potential changes to technology, such as Near Field Communication, and/or architecture could improve operations.

34.2.3.   The Department will review the Business Plan and may direct the Contractor to revise the document, as necessary, to reflect changing situations throughout the year. The Contractor shall revise the document as directed by the Department

34.2.4.   The Business Plan shall include, but is not limited to, all of the following:

34.2.4.1.   An outline of all major activities and training planned for the upcoming SFY.

34.2.4.2.   Business improvement objectives for the upcoming SFY.

34.2.4.3.   Methodology for performing activities and meeting objectives.

34.2.4.4.   Recommendations in any area the Contractor feels improvements can be made, based on industry standards, best practices and/or cost efficiencies.

34.2.4.5.   The System Software Release Schedule.

34.2.5.   The Contractor shall deliver the first Business Plan during the beginning of the Operations and Maintenance Phase.

34.2.6.   In addition to revisions directed by the Department, the Contractor shall update the Business Plan for each SFY, within thirty (30) Business days prior to the beginning of that SFY.

34.2.6.1.   In December of each SFY, the Contractor shall also prepare a six- (6-) month evaluation of activities performed during the SFY as compared to the Business Plan for that SFY. If this evaluation of activities results in the need to update or revise the Business Plan, the Contractor shall update the Business Plan accordingly.

34.2.7.   Contractor Approach: The Contractor shall develop and submit the Annual Business Plan (ABP) to the Department for its review and approval. The ABP shall align Contractor activities and support for the coming year with the Department's vision, missions, strategic goals, and business objectives. In particular, the ABP shall focus on opportunities to leverage new technology developments or other industry changes to improve BIDM operations.

34.2.7.1.   Preparation of the ABP shall provide an annual forum for the Department and the Contractor to discuss opportunities for improvements or changes in technology, architecture, or business processes designed to reduce costs, increase efficiencies, improve data quality, identify probable fraudulent activities, prepare for upcoming changes, and/or enable the Department to progress in meeting MITA maturity level requirements. It shall minimally include the topics detailed in this section.

34.2.7.2.   In ongoing Contract years, the Contractor shall update and submit the ABP thirty (30) Business Days prior to the beginning of each state fiscal year. It shall prepare a 6-month evaluation of activities performed during the previous year and revise the ABP to reflect updated goals and activities.

34.2.7.3.   The Contractor and the Department shall work to coordinate a meeting with the Contractor's Chief Operating Officer or Senior Vice President/General Manager of State Government approximately once every six- (6-) months.

34.2.8.   Deliverables: First Business Plan, Revisions to the Business Plan, Annual Business Plan Update, Six-Month Evaluation of Activities

34.2.9.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

34.3.   Reference #3803: The Contractor shall stay abreast of federal and State initiatives and work in partnership with the Department to identify possible solutions and resolutions to meet changing requirements. The Contractor shall participate in the National Medicaid EDI HIPAA Workgroup (NMEH) and other national organizations and initiatives.

34.3.1.   The Contractor's Compliance and Security Manager Key Personnel position shall address health care reform and upcoming standards and transactions within the BIDM.

34.3.2.   Contractor Approach: The Contractor shall stay abreast of federal and State initiatives and work in partnership with the Department to identify possible solutions and resolutions to meet changing requirements. The Contractor shall participate in NMEH and other national organizations and initiatives. The Contractor shall closely follow standards development that affect healthcare, especially Medicaid and Medicare.

34.3.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

34.4.   Reference #3804: The Contractor shall provide price and schedule estimates to support proposed legislation, budget requests, and other initiatives, as directed by the Department.

34.4.1.   After receiving notification and requirements from the Department, Contractor shall respond within two (2) Business Days for any requests made during the Colorado Legislative Session, or as otherwise agreed to by the Department and outlined in the Change Management Plan.

34.4.2.   After receiving notification and requirements from the Department, Contractor shall respond within five (5) Business Days for any requests made outside of the Colorado Legislative Session, or as otherwise agreed to by the Department and outlined in the Change Management Plan.

34.4.3.   Contractor Approach: The Contractor shall provide price and schedule estimates to support proposed legislation, budget requests, and other initiatives, as directed by the Department. The Contractor shall provide the analytic support needed to augment the Department's work or to perform analytic work on the Department's behalf, as directed by the Department. After receiving a request and requirements from the Department, the Contractor shall provide a response within two (2) business days during the Colorado legislative session, within five (5) days outside the session, or within another timeframe the Department agreed to and that is consistent with the Change Management Plan.

34.4.4.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

34.5.   Reference #3805: For all deliverables, the Contractor shall adhere to the Deliverable submission, review, and approval process as described and approved by the Department within the Communication Management Plan.

34.5.1.   Contractor Approach: The Contractor shall adhere to the Deliverable submission, review, and approval process as described and approved by the Department within the Communication Management Plan.

34.5.2.   Requirement Stage: BIDM Implementation Contract Stage II

34.6.   Reference #3806: All Deliverables from the Contractor shall meet the Department-approved standards, format and content requirements, and the Department will specify the number of copies and types of media for each Deliverable.

34.6.1. Contractor Approach: All Deliverables from the Contractor shall meet Department-approved standards, format and content requirements. The Contractor shall provide the number of copies and types of media for each Deliverable as specified by the Department.

34.6.2. Requirement Stage: BIDM Implementation Contract Stage II

35. TRAINING REQUIREMENTS

35.1. Reference #3807: The Contractor shall propose, develop, produce, publish, and deliver training materials specific to the BIDM for authorized BIDM users at the Authorized User Level.

35.1.1. Contractor Approach: The Contractor shall propose, develop, produce, publish, and deliver training materials specific to the BIDM for authorized BIDM users at the Authorized User Level. The Contractor shall establish a deliverable review process that will provide the Department with the opportunity to review and approve training deliverables.

35.1.2. Deliverable: Training Materials

35.1.3. Deliverable Stage: BIDM Implementation Contract Stage II

35.2. Reference #3808: The Contractor shall maintain ongoing training program for Contractor staff and authorized BIDM users in the use and modification of Rules Engine.

35.2.1. The Contractor shall host this Training Program at least once per SFY.

35.2.2. Contractor Approach: The Contractor shall maintain an ongoing training program for Contractor staff and authorized BIDM users in the creation, use and modification of the Rules Engine Functionality. The Contractor shall train the Department's designated staff on Rules Engine functions and our processes for updating the Rules Engine configuration whenever business rules change. Training shall cover associated reference documentation, the functionality of the rules engine, and how rules can be incorporated into querying, analysis, and reporting.

35.2.3. Deliverable: Training Program.

35.2.4. Deliverable Stage: BIDM Implementation Contract Stage III

35.3. Reference #3809: The Contractor shall provide a training classroom according to the schedule in the Department approved Training Plan to support hands on, face-to-face training that includes at least fifteen (15) workstations.

35.3.1. This training room shall also include the ability for remote training participation and presentations, such as through WebEx.

35.3.2. Contractor Approach: The Contractor shall provide a training classroom to support hands-on, face-to-face training that includes at least fifteen (15) workstations. The Contractor shall equip a Department-approved training and resource center with classroom-style furniture, such as tables, desks, chairs, whiteboards, flipcharts, computers and video projectors, and provide access to the training environment of the BIDM.

35.3.3. Requirement Stage: BIDM Implementation Contract Stage II

35.4. Reference #3810: The Contractor shall provide a training environment that is similar in response time and functionality that will be experienced by authorized BIDM users in day-to-day operations.

35.4.1. Contractor Approach: The Contractor shall provide a training environment similar to the BIDM production environment, including similar functionality and report response times.

35.4.2. Requirement Stage: BIDM Implementation Contract Stage II

35.5.   Reference #3811: The Contractor shall ensure all training data is compliant with HIPAA and State and federal requirements.

35.5.1.   Contractor Approach: The training environment shall be compliant with HIPAA and state and federal requirements.

35.5.2.   Requirement Stage: BIDM Implementation Contract Stage II

35.6.   Reference #3812: The Contractor shall ensure all training publications and materials that are distributed to trainees shall not utilize PHI, such as by using dummy ids and fake names, and is compliant with HIPAA and State and federal requirements.

35.6.1.   Contractor Approach: None of the materials distributed to training participants shall include any protected health information and all materials shall comply with HIPAA and state and federal requirements.

35.6.2.   Requirement Stage: BIDM Implementation Contract Stage II

35.7.   Reference #3813: The Contractor shall provide the ability for video conferencing, or other remote methods as approved by the Department, for training participation and presentations.

35.7.1.   Contractor Approach: The training classroom shall accommodate remote training participation and presentations via videoconference.

35.7.2.   Requirement Stage: BIDM Implementation Contract Stage II

35.8.   Reference #3814: The Contractor shall provide on-going coaching and assistance to authorized BIDM users that will provide them the ability to fully utilize System Tools and functionality implemented during BIDM Implementation Contract Stage I.

35.8.1.   This on-going coaching and assistance shall be provided as agreed upon and outlined in the Communication Management Plan.

35.8.2.   Contractor Approach: The Contractor shall provide training and reference documentation on the Sandbox environment, data models, data access methods, data dissemination functions, interfaces and exchanges, and the Sandbox toolset. The Contractor shall provide training and documentation on the data, including model, governance, and characteristics, and best practices for utilizing the data, including indices, linking data, and recommended parameters.

35.8.3.   Requirement Stage: BIDM Implementation Contract Stage I

35.9.   Reference #3815: The Contractor shall provide training and associated reference documentation to authorized BIDM users that will provide them the ability to fully utilize the SQL Tool that will be used to access the Sandbox during BIDM Implementation Contract Stage I.

35.9.1.   This training will be limited to authorized BIDM users whose role-based profiles allow access to the tools and data provided in BIDM Implementation Contract Stage I, as determined by the Department. This Training and associated reference documentation shall be developed and provided as directed per the Training Plan.

35.9.2.   Contractor Approach: The Contractor shall provide training and reference documentation on the Sandbox environment, data models, data access methods, data dissemination functions, interfaces and exchanges, and the Sandbox toolset.

35.9.3.   Requirement Stage: BIDM Implementation Contract Stage I

35.10.   Reference #3816: The Contractor shall provide training and associated reference documentation to authorized BIDM users that will provide them the ability to fully utilize the Secure Data Dissemination functionality available during BIDM Implementation Contract Stage I.

35.10.1.   This training will be limited to authorized BIDM users whose role-based profiles allow access to the tools and data provided in BIDM Implementation Contract Stage I, as determined by the Department. This Training and associated reference documentation shall be developed and provided as directed per the Training Plan.

35.10.2.   Contractor Approach: The Contractor shall provide training and reference documentation on the Sandbox environment, data models, data access methods, data dissemination functions, interfaces and exchanges, and the Sandbox toolset. This training shall provide trainees with the ability to fully utilize the Sandbox Secure Data Dissemination functionality. Secure data dissemination functionality shall be provided through a tool, such as the MOVEit software tool.

35.10.3.   Requirement Stage: BIDM Implementation Contract Stage I

35.11.   Reference #3817: The Contractor shall provide training and associated reference documentation to authorized BIDM users that will provide them the ability to fully utilize other System Tools and functionality available as part of the Sandbox during BIDM Implementation Contract Stage I.

35.11.1.   This training will be limited to authorized BIDM users whose role-based profiles allow access to the tools and data provided in BIDM Implementation Contract Stage I, as determined by the Department. This Training and associated reference documentation shall be developed and provided as directed per the Training Plan.

35.11.2.   Contractor Approach: The Contractor shall provide training and reference documentation on other Sandbox System Tools and functionality. The Contractor shall provide training and documentation on the data, such as training on model, governance, and characteristics, and best practices for utilizing the data, such as training on indices, linking data, and recommended parameters.

35.11.3.   Requirement Stage: BIDM Implementation Contract Stage I

35.12.   Reference #3818: The Contractor shall provide training and associated reference documentation to authorized BIDM users on the Sandbox, BIDM Interfaces and BIDM Data Exchanges that are implemented as a result of BIDM Implementation Contract Stage I.

35.12.1.   This training will be limited to authorized BIDM users whose role-based profiles allow access to the tools and data provided in BIDM Implementation Contract Stage I, as determined by the Department. This Training and associated reference documentation shall be developed and provided as directed per the Training Plan.

35.12.2.   Contractor Approach: The Contractor shall provide training and reference documentation on the Sandbox environment, data access methods, data dissemination functions, interfaces and exchanges, and the Sandbox toolset. The Contractor shall provide training and documentation on the data, such as training on model, governance, and characteristics, and best practices for utilizing the data, such as training on indices, linking data, and recommended parameters.

35.12.3.   Requirement Stage: BIDM Implementation Contract Stage I

35.13.   Reference #3819: The Contractor shall provide overview training of BIDM Implementation Contract Stage I components, such as the data model, System Tools, BIDM Interfaces and BIDM Data Exchanges, by providing overview training to designated Department personnel to improve the Department's understanding of the Contractor's baseline solution.

35.13.1. Contractor Approach: The Contractor shall provide overview training and reference documentation on the Sandbox environment, data models, data access methods, data dissemination functions, interfaces and exchanges, and the Sandbox toolset.

35.13.2. Requirement Stage: BIDM Implementation Contract Stage I

35.14. Reference #3820: The Contractor shall provide training and associated reference documentation to authorized BIDM users on the data, including model, governance and characteristics, and best practices for utilizing the data, including indices, linking data and recommended parameters, in the Sandbox included during BIDM Implementation Contract Stage I.

35.14.1. This training will be limited to authorized BIDM users whose role-based profiles allow access to the tools and data provided in BIDM Implementation Contract Stage I, as determined by the Department. This Training and associated reference documentation shall be developed and provided as directed per the Training Plan.

35.14.2. Contractor Approach: The Contractor shall provide role-based training and reference documentation on the Sandbox environment, data models, data access methods, data dissemination functions, interfaces and exchanges, and the Sandbox toolset. The Contractor shall provide training and documentation on the data, such as training on model, governance, and characteristics, and best practices for utilizing the data, such as training on indices, linking data, and recommended parameters.

35.14.3. Requirement Stage: BIDM Implementation Contract Stage I

35.15. Reference #3821: The Contractor shall provide overview training of BIDM Implementation Contract Stage II components, such as data model, System Tools, BIDM Interfaces and BIDM Data Exchanges, by providing overview training to designated Department personnel to improve the Department's understanding of the Contractor's baseline solution.

35.15.1. This Training and associated reference documentation shall be developed and provided as directed per the Training Plan.

35.15.2. Contractor Approach: The Contractor shall provide overview training of BIDM Implementation Contract Stage II components, such as data model, System Tools, BIDM interfaces, and BIDM data exchanges, to improve the Department's understanding of the baseline solution.

35.15.3. Requirement Stage: BIDM Implementation Contract Stage II

35.16. Reference #3822: The Contractor shall provide system and data conversion training and associated reference documentation to authorized BIDM users at the appropriate Authorized User Levels.

35.16.1. The system and data conversion training and reference documentation shall assist authorized BIDM users in understanding the BIDM data and tools as compared with the current MMIS DSS data and tools, including where and how the data used to be accessed and how it is accessed in the BIDM. Training shall be adapted and provided for each of the Authorized User Levels as determined by the Department and as directed per the Training Plan.

35.16.2. Contractor Approach: The Contractor shall provide system and data conversion training and associated reference documentation at the authorized user levels. This shall include training on best practices for utilizing the data, such as indices, recommended parameters, and linking data.

35.16.3. Requirement Stage: BIDM Implementation Contract Stage II

35.17. Reference #3823: The Contractor shall provide initial and ongoing training and associated reference documentation to authorized BIDM users at the appropriate Authorized User Levels

related to the BIDM, including model, governance and characteristics and best practices for utilizing the data, including indices, recommended parameters and linking data.

35.17.1.	Data and best practices training shall assist authorized BIDM users in understanding what data are available and optimal means for utilizing the data and to enable authorized BIDM users to understand the data as well as the tools. Training shall be adapted and provided for each of the Authorized User Levels as determined by the Department and as directed per the Training Plan.

35.17.2.	Contractor Approach: The Contractor shall provide initial and ongoing training and associated reference documentation to authorized BIDM users at the appropriate Authorized User Levels related to the BIDM, including model, governance and characteristics and best practices for utilizing the data, including indices, recommended parameters and linking data. Stage II training shall provide overview training of BIDM Implementation Contract Stage II components. The Contractor shall provide system and data conversion training and associated reference documentation at authorized user levels.

35.17.3.	Requirement Stage: BIDM Implementation Contract Stage II

35.18.	Reference #3824: The Contractor shall provide initial and ongoing training and associated reference documentation to authorized BIDM users at the appropriate Authorized User Levels related to each applicable System Tool and functionality.

35.18.1.	System Tool and functionality training shall ensure that authorized BIDM users are be proficient at the appropriate user level in using the BIDM in order to ensure accurate, effective, and efficient business operations. Training shall be adapted and provided for each System Tool and functionality for each of the Authorized User Levels as determined by the Department and as directed per the Training Plan.

35.18.2.	Contractor Approach: The Contractor shall provide initial and ongoing training that enables functionality for each applicable BIDM tool and helps users make the transition. This shall involve helping users to reproduce old reports, understand how legacy functions might work in the BIDM, and master the location and naming of data elements. The Contractor shall provide training and associated reference documentation to participants at the appropriate user levels, as they relate to each applicable BIDM tool and functionality. As directed in the approved Training Plan, this training shall help trainees utilize unstructured data in querying, analysis, and reporting. It shall explain data structures, such as, data marts, cubes, and predefined analytics, and the use of tools in querying, analysis, and reporting.

35.18.3.	Requirement Stage: BIDM Implementation Contract Stage III

35.19.	Reference #3825: The Contractor shall provide initial and ongoing training and associated reference documentation to authorized BIDM users at the appropriate Authorized User Levels to provide them the ability to utilize unstructured data in querying, analysis, and reporting.

35.19.1.	Training shall be adapted and provided for each System Tool and functionality for each of the Authorized User Levels as determined by the Department and as directed per the Training Plan.

35.19.2.	Contractor Approach: The Contractor shall provide initial and ongoing training on querying, analysis, and reporting. The Contractor shall provide training and associated reference documentation to participants at the appropriate user levels. As directed in the approved Training Plan, training shall provide users with the ability to utilize unstructured data in querying, analysis, and reporting.

35.19.3.	Requirement Stage: BIDM Implementation Contract Stage III

35.20. Reference #3826: The Contractor shall provide initial and ongoing training and associated reference documentation to authorized BIDM users at the appropriate Authorized User Levels addressing data structure, such as data marts, cubes and predefined analytics, and using System Tools in querying, analysis, and reporting.

35.20.1. Training shall be adapted and provided for each System Tool and functionality for each of the Authorized User Levels as determined by the Department and as directed per the Training Plan.

35.20.2. Contractor Approach: The Contractor shall provide initial and ongoing training addressing data structure, such as data marts, cubes and predefined analytics, and using System Tools in querying, analysis, and reporting. The Contractor shall provide training and associated reference documentation to participants at the appropriate user levels.

35.20.3. Requirement Stage: BIDM Implementation Contract Stage III

35.21. Reference #3827: The Contractor shall provide initial and ongoing training and associated reference documentation to authorized BIDM users at the appropriate Authorized User Levels addressing functionality of the Rules Engine Functionality and how rules may be incorporated into querying, analysis, and reporting.

35.21.1. Training shall be adapted and provided for each System Tool and functionality for each of the Authorized User Levels as determined by the Department and as directed per the Training Plan.

35.21.2. Contractor Approach: The Contractor shall provide initial and ongoing training on querying, analysis, and reporting. The Contractor shall provide training and associated reference documentation to participants at the appropriate user levels. As directed in the approved Training Plan, training shall address Rules Engine Functionality and how rules may be incorporated into querying, analysis, and reporting.

35.21.3. Requirement Stage: BIDM Implementation Contract Stage III

35.22. Reference #3828: The Contractor shall provide initial and ongoing training and associated reference documentation to authorized BIDM users at the appropriate Authorized User Levels addressing Contractor documentation, including what exists, how to access it and where to find it.

35.22.1. Training shall be adapted and provided for each System Tool and functionality for each of the Authorized User Levels as determined by the Department and as directed per the Training Plan.

35.22.2. Contractor Approach: Users shall have ready access to extensive supporting documentation. This documentation shall be available internally in applications, in the documentation management System, in training materials, and on the Contractor's product support portal. During training sessions, the Contractor shall guide participants through this documentation and best practices for accessing Help resources. In addition to formal training, the Contractor shall coach users on the content and location of reference resources.

35.22.3. Requirement Stage: BIDM Implementation Contract Stage II

35.23. Reference #3829: The Contractor shall provide on-going coaching and assistance to authorized BIDM users that will provide them the ability to fully utilize System Tools and functionality implemented during the Organizational Readiness and Training Phase and during go-live operations.

35.23.1. This on-going coaching and assistance shall be provided as agreed upon and outlined in the Communication Management Plan.

35.23.2. Contractor Approach: The Contractor shall provide training customized to the Department's specific program needs during the Organizational Readiness and Training Phase and during go-live operations. Training courses shall maximize hands-on experience, utilizing scenarios that users encounter in the "real world." Participants actively using the BIDM shall have online, "live" experiences for all reporting tools. On-going coaching and assistance shall be provided as agreed upon and outlined in the Communication Management Plan and Training Plan.

35.23.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

35.24. Reference #3830: During the Organizational Readiness and Training Phase and the Operation and Maintenance Phase, the Contractor shall provide regular training sessions for authorized BIDM users to disseminate updated or new functionality or business processes related to the BIDM throughout the term of the Contract.

35.24.1. Contractor Approach: As changes affect the applications, functions, or data used by HCPF analysts, the Contractor shall perform training to facilitate the transition and familiarize users with the changes and/or new functionality during the Organizational Readiness and Training Phase and the Operation and Maintenance Phase. The Contractor shall update the documentation, training, and training materials in order to ensure users maintain current, relevant, and thorough knowledge of BIDM functionality.

35.24.2. Requirement Stage: BIDM Implementation Contract Stage II

35.25. Reference #3831: The Contractor shall provide ongoing training and associated reference documentation throughout the term of the Contract for authorized BIDM users at the Authorized User Level addressing BIDM, System Tool, data and process changes, upgrades, and enhancements to ensure that authorized BIDM users maintain current, relevant, and thorough knowledge on the functionality and utilization of the BIDM.

35.25.1. These trainings and associated reference documentation shall be developed and provided as outlined in the Training Plan

35.25.2. Contractor Approach: The Contractor shall provide ongoing training and associated reference documentation throughout the term of the Contract for authorized BIDM users at the authorized user level addressing BIDM, system tool, data and process changes, upgrades, and enhancements to ensure that authorized BIDM users maintain current, relevant, and thorough knowledge on the functionality and utilization of the BIDM. The Contractor shall update the documentation, training, and training materials in order to ensure users maintain current, relevant, and thorough knowledge of BIDM functionality.

35.25.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

35.26. Reference #3832: The Contractor shall provide evaluation and quality improvement components for all training sessions for initial and ongoing training for authorized BIDM users.

35.26.1. The Contractor shall update the evaluation and quality improvement components for all training sessions as outlined in the Training Plan.

35.26.2. Contractor Approach: At the end of each training session, the Contractor shall provide users with a survey to critique their learning experience. Instructors shall review these evaluations to assess the effectiveness of the instructor, the instructional materials, and the overall course.

35.26.2.1. The Contractor shall track and provide confirmation of attendance at all training sessions as well as the versions of training materials presented during a training session. In addition, the

Contractor shall provide summaries of training evaluations by participants as well as a summarized version by training session.

35.26.3.   Deliverable: Evaluation and Quality Improvement Components for all Training Sessions

35.26.4.   Deliverable Stage: BIDM Implementation Contract Stage II

35.27.   Reference #3833:   The Contractor shall incorporate evaluation and quality improvement components from training sessions to improve future training for authorized BIDM users.

35.27.1.   The Contractor shall update future training as necessary to include the results of evaluation and quality improvement components of prior training.

35.27.2.   Contractor Approach: At the end of a training session, the Contractor shall provide users with a survey to critique their learning experience. Instructors shall review these evaluations to assess the effectiveness of the instructor, the instructional materials, and the overall course. The assessment results shall be used by instructors to focus future training.

35.27.3.   Requirement Stage: BIDM Implementation Contract Stage II

35.28.   Reference #3834: The Contractor shall provide quarterly training sessions for Advanced Users addressing topics of concern, such as a certain aspect of tool functionality or nuances associated with data use.

35.28.1.   This training shall include topics agreed to between the Department and the Contractor. These Trainings shall be provided as outlined in the Training Plan.

35.28.2.   Contractor Approach: The Contractor shall collaborate with the state's "power users" to ensure they gain rapid mastery of the new tools and methods. The Contractor shall create additional opportunities by designing joint projects where our analysts work side-by-side with BIDM power end-users to complete a complex analysis.

35.28.2.1.   The Contractor shall provide training sessions for advanced users at least quarterly. The Contractor shall work with HCPF to ensure that quarterly sessions address topics of specific interest to this population, such as advanced functionality, specific reporting requirements, and data nuances.

35.28.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

35.29.   Reference #3835:   The Contractor shall provide commercially available, comprehensive, Department approved electronic training for System Tools for authorized BIDM users to access on-demand.

35.29.1.   These trainings shall address all System Tools user levels, including beginner, intermediate and advanced.

35.29.2.   These trainings shall reflect electronic guidelines included in the Authorized User Level Training Guideline provided by the Department and as directed per the Training Plan.

35.29.3.   This electronic training shall be used as a compliment, and not in place of, in-person training provided by the Contractor.

35.29.4.   Contractor Approach: The Contractor shall provide e-learning training that provides real-life scenarios and hands-on practice using a simulated training environment. Skills checks shall be included in e-learning courses to measure if students understand the concepts and functionality being taught.

35.29.5.   Requirement Stage: BIDM Implementation Contract Stage II

35.30. Reference #3836: The Contractor shall provide annual professional training, such as training by the company associated with the software or training consultant groups, on one of the System Tools each year for Advanced Users addressing the System Tool and functionality agreed upon by the Department and the Contractor.

35.30.1. These trainings shall include System Tools and functionality agreed to by the Department and the Contractor and shall be provided as outlined in the Training Plan.

35.30.2. The Contractor shall provide this training for a number of Advanced Users as agreed to between the Contractor and the Department.

35.30.3. Contractor Approach: The Contractor shall provide annual advanced-users professional training, by either the company associated with the software or training consultant groups, on one of the System Tools that addresses the tool's functionality, as agreed upon by the Department and the Contractor.

35.30.4. The number of users and associated costs for each course shall be discussed and agreed to by Department and the Contractor for any additional professional trainings beyond the annual professional training contained in the Training Plan.

35.30.5. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

35.31. Reference #3837: The Contractor shall provide electronic, on-demand training that authorized BIDM users may choose to access in lieu of face-to-face training.

35.31.1. These trainings shall reflect electronic guidelines included in the Authorized User Level Training Guideline provided by the Department and as directed per the Training Plan.

35.31.2. Contractor Approach: The Contractor shall provide electronic, on-demand training that authorized BIDM users may choose to access in lieu of face-to-face training.

35.31.3. Requirement Stage: BIDM Implementation Contract Stage II

35.32. Reference #3838: The Contractor shall provide ongoing training and training documentation on rules created or updated in the rules engine to satisfy the Department's and authorized BIDM users' needs.

35.32.1. This training shall be provided as outlined in the Training Plan.

35.32.2. Contractor Approach: The Contractor shall train designated Department staff on Rules Engine Functionality and processes for updating Rules Engine Functionality configuration. The Contractor shall provide training and documentation on rules created or updated in the rules engine.

35.32.3. Requirement Stage: BIDM Implementation Contract Stage III

35.33. Reference #3839: The Contractor shall track and provide confirmation of attendance at all training sessions and what versions of training materials were presented at the training.

35.33.1. Contractor Approach: The Contractor shall track and provide electronic confirmation of attendance at all training sessions as well as the versions of training materials presented during a training session.

35.33.2. Requirement Stage: BIDM Implementation Contract Stage II

35.34. Reference #3840: The Contractor shall provide training evaluation reports by participant or summaries of evaluation to the Department.

35.34.1.   Contractor Approach: The Contractor shall track and provide confirmation of attendance at all training sessions. In addition, the Contractor shall provide summaries of training evaluations by participants as well as a summarized version by training session.

35.34.2.   Requirement Stage: BIDM Implementation Contract Stage II

35.35.   Reference #3841: The Contractor shall provide initial and on-going training to the Contractor's Non-Key Personnel Analytics Staff at the Advanced User Level.

35.35.1.   Contractor Approach: The Contractor shall provide initial and ongoing training to members of its own Analytic Staff at the advanced-user level. The Contractor shall provide a comprehensive training and professional development program for its staff.

35.35.1.1.   The Contractor shall perform BIDM-specific staff training to support individual job responsibilities. At the outset of the project and as needed thereafter, the Contractor shall provide training to new staff on the BIDM project. Staff shall also attend ongoing relevant product training that is needed when tools are changed or versions are upgraded.

35.35.2.   Requirement Stage: BIDM Implementation Contract Stage III

35.36.   Reference #3842: The Contractor shall provide the Department copies of Department approved, commercially available training and/or guide books addressing System Tools.

35.36.1.   The Contractor shall provide at least four copies of each book for distribution throughout the Department. These books are required in addition to all other training materials described in this Contract.

35.36.2.   Contractor Approach: The Contractor shall provide the Department copies of Department-approved, commercially available training and/or guide books addressing BIDM tools. The Contractor shall provide at least four copies of each book for distribution throughout the Department.

35.36.3.   Requirement Stage: BIDM Implementation Contract Stage III

35.37.   Reference #3843: The Contractor shall propose, produce, deliver, and support initial and ongoing training materials and web-based training and tutorials addressing all areas of BIDM functionality and use.

35.37.1.   Contractor Approach: The Contractor shall propose, produce, deliver, and support initial and ongoing training materials and web-based training and tutorials addressing all areas of BIDM functionality and use.

35.37.2.   Deliverable: Training Materials and Web-Based Training

35.37.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

35.38.   Reference #3844: THIS REQUIREMENT INTENTIONALLY DELETED

36. USER HELP REQUIREMENTS

36.1.   Reference #3845: The Contractor shall create and maintain an on-line, searchable, downloadable data dictionary of all tables and fields, field types and descriptions, and valid values, to be understood by an authorized BIDM user, such as data dictionaries similar to those provided by the US Census Bureau.

36.1.1.   Contractor Approach: The Contractor shall create and maintain an on-line, searchable, downloadable data dictionary. Users shall be able to trace an entity from the source system, through the various transformations it undergoes, to the ultimate target system in which the data

lands. Technical metadata shall include things like the technical name of tables and columns in the database, the data type and size for columns, field descriptions and description of acceptable or default values.

36.1.2.   Requirement Stage: BIDM Implementation Contract Stage III

36.2.   Reference #3846: The Contractor shall provide and maintain data layout documentation, data dictionary, data mapping crosswalk, inbound/outbound capability, and frequency for all BIDM Interfaces and BIDM Data Exchanges.

36.2.1.   The Contractor shall provide the materials in formats and media requested by the Department.

36.2.2.   The Contractor shall provide searchable, downloadable versions that are readily available on-line to Department designated users.

36.2.3.   At a minimum, the data dictionary shall contain all of the following for each field:

36.2.3.1.   Human readable/"plain English" field name.

36.2.3.2.   A field description.

36.2.3.3.   Database field name.

36.2.3.4.   Database table.

36.2.3.5.   Field Type and length.

36.2.3.6.   Codes associated with the field.

36.2.3.7.   Descriptions of each code.

36.2.3.8.   Original field source, such as CBMS or CORHIO.

36.2.4.   Contractor Approach: The Contractor shall provide other data documentation, including data layouts, data mapping crosswalk, inbound/outbound capability, and frequency for all BIDM interfaces and BIDM data exchanges. The Data Dictionary shall minimally contain the items detailed in this section. The Contractor shall publish this information in formats and media requested by the Department and provide searchable, downloadable versions of all documents that are readily available online to Department designated users.

36.2.5.   Requirement Stage: BIDM Implementation Contract Stage III

36.3.   Reference #3847: The Contractor shall provide the ability to view online the data dictionary information for any given BIDM field while viewing the actual data in the BIDM.

36.3.1.   This shall include mouse-over functionality that results in having pop-up information GUI provided when a user hovers over a field.

36.3.2.   Contractor Approach: In addition to the downloadable Data Dictionary, metadata also shall be captured and made accessible in the various BIDM tools. By embedding metadata within the tool, report users and developers shall be able to have "hover over" metadata about the various fields that make up the report and get the corresponding definitions.

36.3.3.   Requirement Stage: BIDM Implementation Contract Stage III

36.4.   Reference #3848: For all BIDM derived data fields, BIDM calculations, and Contractor developed reports, the Contractor shall provide full documentation in searchable, electronic, human readable format that is readily available via online accessible to the Department and its designees.

36.4.1. Contractor Approach: The Contractor shall provide documentation on derived data fields, system calculations, and Contractor developed reports in searchable, electronic, human readable format that is readily accessible to users in a document management system, such as SharePoint, to help ensure that all members of the project team have a consistent understanding of the data contained in a field, the formula by which that field arrived at a specific value, and how that field and others are used to create a given report.

36.4.2. Deliverable: Data Field, Calculation and Report Documentation

36.4.3. Deliverable Stage: BIDM Implementation Contract Stage III

36.5. Reference #3849: The Contractor shall not be responsible for documenting ad hoc reports that were not created by Contractor staff.

36.5.1. Contractor Approach: The Contractor shall not be responsible for documenting ad hoc reports that were not created by Contractor staff.

36.5.2. Requirement Stage: BIDM Implementation Contract Stage II

36.6. Reference #3850: The Contractor shall provide and maintain a comprehensive record of queries and reports and associated identifying criteria for each query and report, including title, author, creation date, last run date, intended use, descriptions, keywords and program areas.

36.6.1. This record shall include all Contractor developed and/or generated queries and reports, all BIDM generated reports and any queries or reports added to the list by authorized BIDM users.

36.6.2. Contractor Approach: The Contractor shall provide and maintain a comprehensive record or log of queries and reports, developed by the Contractor, to include system-generated production reports and other reports developed by the Contractor. This log shall also be able to include other reports added to the list by BIDM users, assuming the relevant descriptive information is provided by them. To support report/query metadata management, the Contractor shall create a dedicated folder within the document management system and implement processes to collect and store this data.

36.6.3. Requirement Stage: BIDM Implementation Contract Stage III

36.7. Reference #3851: The Contractor shall provide the ability for authorized BIDM users to search the comprehensive record of queries and reports to identify and locate queries and reports that may meet their business needs.

36.7.1. Contractor Approach: The Contractor shall provide a document management system that enables project-support materials and content to be organized and quickly accessed by users.

36.7.2. Requirement Stage: BIDM Implementation Contract Stage III

36.8. Reference #3852: The Contractor shall produce and maintain documentation regarding all business rules, including any exception handling rules.

36.8.1. The Contractor shall link every business rule in the Rules Engine Functionality to the particular part of the BIDM design documents that called for the rule functionality.

36.8.2. The Contractor shall make documentation available to Department designated users in on-line, searchable, downloadable formats.

36.8.3. Contractor Approach: The Contractor shall produce and maintain documentation regarding the data-transformation business rules, including any exception handling rules. The documentation shall be associated directly with the data elements being transformed. The Contractor shall make

the documentation available to the Department designated users in online, searchable, downloadable formats.

36.8.4.   Deliverable: Business Rule Documentation

36.8.5.   Deliverable Stage: BIDM Implementation Contract Stage III

36.9.   Reference #3853: The Contractor shall provide the ability for authorized BIDM users to add and update queries and reports and associated identifying criteria, including title, author, creation date, last run date, intended use, descriptions, keywords and program areas, to the comprehensive record of queries and reports.

36.9.1.   Contractor Approach: The Contractor shall provide a document management system to provide authorized users with the ability to access, create, and update report/query logs. This shall support the report criteria and metadata detailed in this section. In addition to "edit" functions, the document management system shall enable authorized users to "lock," download, upload, and "unlock" documents. These functions shall allow multiple users to maintain joint documents effectively and collaboratively.

36.9.1.1.   To foster this collection of report/query metadata for searching and logic reuse, the Contractor shall make this report documentation process a training subject for application users. For Contractor-originated reports, the Contractor shall document and validate report metadata as part of our standards and quality assurance program.

36.9.2.   Requirement Stage: BIDM Implementation Contract Stage III

36.10.   Reference #3854: The Contractor shall provide and maintain a forum for authorized BIDM users to post inquiries, and to respond to other participants and create topical "threads" on problems.

36.10.1.   The Contractor shall allow Department staff and other designated authorized BIDM users to access the forum and to participate and moderate the posts and threads, based upon user roles.

36.10.2.   The Contractor shall provide a search capability to find posts and threads by date or relevance.

36.10.3.   Contractor Approach: The Contractor shall leverage its document management system to allow Department users to share documents and communicate in a user forum.   The document management system shall provide a fully featured function for creating and supporting interactive team discussions. The Contractor shall develop and implement a discussion forum in the document management system to support users' discussion of problems and to post inquiries. This role-based, secured function shall be similar in use and function to common online forums.

36.10.4.   Requirement Stage: BIDM Implementation Contract Stage III

36.11.   Reference #3855:   The Contractor shall allow authorized BIDM users to subscribe to, and unsubscribe from, publications and content, such as threads and hot topics, and to receive notification by email when additions or changes are made to subscribed content.

36.11.1.   Contractor Approach: The Contractor shall use a document management system to support subscription functionality across the application, allowing users to be notified by email of any changes made to the content of your team's website. When a user subscribes to a list, document library, discussion board, or survey, the web server shall notify the user on a scheduled basis if an item is modified or deleted or a new item is added to the component to which the user is subscribed. Users shall be able to cancel their subscriptions at any time.

36.11.2.   Requirement Stage: BIDM Implementation Contract Stage III

36.12. Reference #3856: During the Operations and Maintenance Phase, the Contractor shall provide a searchable and indexed web-based library, with highly flexible search criteria to enable an authorized BIDM user to quickly find needed information in policy manuals, training material, implementation memos, data dictionary and all necessary help functions.

36.12.1. Contractor Approach: The Contractor shall create a library of indexed and searchable folders for organizing project documents so they can be located easily. Intuitive and fully featured search functions shall support user queries and search parameters. Functionality shall be implemented so that documents can be uploaded, downloaded, and "checked out" within document management controls that log users' activities and dates. Security functions shall enable the protection of library contents throughout the project's life cycle. The Contractor shall meet with the Department to determine the information to be included in the SharePoint library to ensure it is available during the Operations and Maintenance Phase.

36.12.2. Deliverable: Web-Based Library

36.12.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

36.13. Reference #3857: The Contractor shall propose, develop, produce, publish, deliver, and maintain all applicable BIDM User Guide/Help updates.

36.13.1. Contractor Approach: The Contractor shall use the document management system to support the maintenance, update, and delivery of system documentation and training materials. Authorized users shall have ready access to the latest versions of systems and user documents. During user training, the Contractor shall train users on the location of the latest version of supporting documents.

36.13.1.1. With each software release, the latest version of application-specific internal Help shall be provided to users as part of the release/migration process. Any documentation that is not embedded within BIDM applications shall be developed and maintained in the SharePoint environment.

36.13.2. Deliverable: User Guide/Help Updates

36.13.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

36.14. Reference #3858: The Contractor shall provide and maintain electronically searchable, downloadable reference materials including but not limited to data dictionaries and valid values/code descriptions that are accessible from within the BIDM while viewing and selecting live data.

36.14.1. Contractor Approach: In addition to the reference materials that the Contractor shall make available through its document management system, metadata also shall be made accessible in various BI tools.

36.14.2. Deliverable: Reference Materials

36.14.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

36.15. Reference #3859: The Contractor shall propose, develop, produce, and maintain frequently asked questions (FAQs) on BIDM data and functionality.

36.15.1. Contractor Approach: The Contractor shall provide and maintain electronically searchable and downloadable user support information in a reference library within the project's collaboration environment. This shall include FAQ document on system data and functionality. The

Contractor shall collect FAQ questions and answers during user interactions, in training sessions, and from existing FAQ items developed across the Contractor's user base.

36.15.2. Deliverable: FAQs

36.15.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

36.16. Reference #3860: The Contractor shall provide and maintain online help function to users on available shortcuts and other user-interface tips within the BIDM.

36.16.1. Contractor Approach: The Contractor shall produce and disseminate topic-specific guidance on how to use system tools more effectively or efficiently.

36.16.1.1. "Tips and tricks" sheets may include topics such as:

36.16.1.1.1. Version upgrade highlights.

36.16.1.1.2. Reporting tips for the newly released product upgrade.

36.16.1.1.3. Tips for subsetting data.

36.16.1.1.4. How to create a job to schedule reports or how to design efficient reports.

36.16.2. Requirement Stage: Ongoing Operations and Enhancement Contract Stage

37. SYSTEM OPERATIONAL SERVICES

37.1. Reference #3861: The Contractor shall support the Department and its contractor(s) in Independent Verification and Validation (IV&V) activities associated with the Contract.

37.1.1. Contractor Approach: The Contractor shall support the Department and its contractor(s) in IV&V activities associated with the Contract.

37.1.2. Requirement Stage: BIDM Implementation Contract Stage II

37.2. Reference #3862: The Contractor shall pay and arrange for an SSAE 16, SOC 1, Type II audit annually, to be conducted by an independent auditor, covering Work performed by the Contractor at the Contractor's facility and data center sites.

37.2.1. Responses to Findings, Action Plans, and Remediation Plans shall be submitted to the Department for review and approval.

37.2.2. The Contractor shall coordinate responses to initial findings with the Department that may impact Department operations.

37.2.3. Contractor Approach: The Contractor shall provide cooperation and teamwork to perform SSAE 16, SOC 1, Type II audit annually. The Contractor shall pay and arrange for the SSAE 16, SOC 1, Type II audit.

37.2.3.1. Responses to Findings, Action Plans, and Remediation Plans shall be submitted to the Department for review and approval.

37.2.3.2. The Contractor shall coordinate responses to initial findings with the Department that may impact Department operations.

37.2.4. Deliverables: SSAE16 Audits, Responses to Findings, Action Plans and Remediation Plans

37.2.5. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.3. Reference #3863: The Contractor shall provide reasonable access to and the ability to inspect, all facilities and data centers or any other site in which the Contractor or any Subcontractors perform

any Work related to this Contract or maintain any records related to this Contract and provide assistance to the federal and State representatives during audits, inspections and evaluations.

37.3.1.   Contractor Approach: The Contractor shall provide reasonable access to and the ability to inspect, all facilities and data centers or any other site in which the Contractor or any Subcontractors perform any Work related to this Contract or maintain any records related to this Contract and provide assistance to the federal and State representatives during audits, inspections and evaluations.

37.3.1.1.   The point of contact for these activities shall be the Contractors Compliance and Security Manager, unless the Department approves another person.

37.3.2.   Requirement Stage: BIDM Implementation Contract Stage II

37.4.   Reference #3864: The Contractor shall notify the Department immediately of any potential BIDM system problems and the potential impact of those problems, including unscheduled downtime.

37.4.1.   Contractor Approach: Contractor shall notify the Department as quickly as possible about any potential system problems and identify any potential impacts, including any unscheduled downtime.

37.4.1.1.   Contractor shall follow the problem notification and communication process as defined in the Communication Management Plan. Notification may be made using telephone or email as approved in that plan.

37.4.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.5.   Reference #3865: The Contractor shall perform the research to identify impacts and root causes of BIDM system problems and communicate to the Department both a plan to resolve problems and anticipated outcomes.

37.5.1.   The Contractor shall implement the plan to resolve problems as approved by the Department, and report the results to the Department.

37.5.2.   Contractor Approach: The Contractor and the Department shall review the issues/risks/problem management logs on a weekly basis, or more frequently depending upon the severity of the problem. These requirements shall be addressed in the System Operations and Maintenance Plan.

37.5.2.1.   The Contractor shall identify the root cause of BIDM system problems.

37.5.2.2.   The Contractor shall produce and submit corrective action plans to address any problems.

37.5.2.3.   The Contractor shall manage and implement changes using the Change Management Processes.

37.5.2.4.   The Contractor shall adhere to the deliverable submission, review, and approval process as described and approved by the Department in the Communication Management Plan.

37.5.2.5.   The Contractor shall address the process for producing a Problem Resolution and Anticipated Outcomes Plan in the System Operations and Maintenance Plan.

37.5.3.   Deliverable: Problem Resolution Plan and Anticipated Outcomes Plan.

37.5.4.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.6.   Reference #3866: The Contractor shall identify and track all errors and discrepancies found in the BIDM, notify the Department and correct all errors and discrepancies.

37.6.1. Contractor Approach: The Contractor shall identify and track all errors and discrepancies found in the BIDM, notify the Department and correct all errors and discrepancies.

37.6.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.7. Reference #3867: The Contractor shall verify, investigate, and report any potential BIDM system problem submitted by an authorized BIDM user within a timeframe as outlined in the System Operations and Maintenance Plan.

37.7.1. Contractor Approach: The Contractor shall verify, investigate, and report any potential BIDM system problem submitted by an authorized BIDM user within a timeframe as outlined in the System Operations and Maintenance Plan.

37.7.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.8. Reference #3868: The Contractor shall provide technical assistance to the Department, BIDM Interface Partners, and BIDM Exchange Partners to establish, support, and maintain BIDM Interfaces and BIDM Data Exchanges to provide data flow into and out of the BIDM.

37.8.1. The Systems Manager Key Personnel position shall ensure appropriate resources are assigned to all system interfaces.

37.8.2. Contractor Approach: The Contractor shall provide technical assistance to the Department, BIDM Interface Partners, and BIDM Exchange Partners to establish, support, and maintain BIDM Interfaces and BIDM Data Exchanges to provide data flow into and out of the BIDM.

37.8.2.1. The Contractor's Systems Manager shall ensure appropriate resources are assigned to all system interfaces.

37.8.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.9. Reference #3869: The Contractor shall coordinate efforts with supplying entities to obtain and deliver new periodic, or real-time if applicable, BIDM Data Exchanges and external data.

37.9.1. Contractor Approach: The Contractor shall coordinate efforts with supplying entities to obtain and deliver new periodic, or near real-time if applicable, BIDM Data Exchanges and external data.

37.9.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.10. Reference #3870: The Contractor shall rectify source data quality issues to the best of its ability via data refactoring or data cleansing as it is extracted from the BIDM Interfaces and BIDM Data Exchanges with little to no impact on the supplying entities.

37.10.1. The Contractor shall complete data integrity checks through all phases of this Contract as an integral part of Operations to ensure quality data.

37.10.2. Contractor Approach: The Contractor shall be prepared to rectify source data quality issues to the best of its ability via data refactoring or data cleansing as it is extracted from the BIDM Interfaces and BIDM Data Exchanges with little to no impact on the supplying entities.

37.10.2.1. The process on how the Contractor will rectify issues shall be described in the Change Management Plan.

37.10.2.2. The Contractor shall complete data integrity checks through all phases of this Contract as an integral part of Operations to ensure quality data.

37.10.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.11. Reference #3871: The Contractor shall coordinate with other contractors, BIDM Interface Partners, BIDM Exchange Partners, and other State stakeholders to provide batch control, balancing, and scheduling of data load cycles, such as BIDM Interfaces and BIDM Data Exchanges.

37.11.1. Contractor Approach: The Contractor shall coordinate with other contractors, BIDM Interface Partners, BIDM Exchange Partners, and other State stakeholders to provide batch control, balancing, and scheduling of data load cycles, such as BIDM Interfaces and BIDM Data Exchanges.

37.11.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.12. Reference #3872: The Contractor shall assist authorized BIDM users when the BIDM tools and/or data are not responding within established parameters.

37.12.1. Contractor Approach: The Contractor shall assist authorized BIDM users when the BIDM tools and/or data are not responding within established parameters.

37.12.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

37.13. Reference #3873: The Contractor shall apply all security patches for all operating systems and any other software associated with the BIDM.

37.13.1. The Contractor shall coordinate with the Department for the deployment of all security patches.

37.13.2. Contractor Approach: The Contractor shall apply all security patches for all operating systems and any other software associated with the BIDM as agreed to through the Change Management Plan.

37.13.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38. CLIENT ATTRIBUTION AND ENROLLMENT ACTIVITIES

38.1. Reference #3874: The Contractor shall develop, document, maintain, and provide per Department specifications, an Enrollment Summary Report which details the results of the monthly enrollment processes.

38.1.1. Contractor Approach: Using specifications provided by the Department, the Contractor shall develop, document, maintain, and submit an ongoing Enrollment Summary Report to summarize the information in the member-level roster/enrollment file sent to the MMIS each month. The Contractor shall design the report to summarize the results of attributions by RCCO, PCMP and other dimensions that are important to the Department.

38.1.2. Deliverable: Enrollment Summary Report

38.1.3. Deliverable Stage: BIDM Implementation Contract Stage II

38.2. Reference #3875: The Contractor shall implement a Client Attribution methodology, as directed by the Department, that enables multiple provider attributions based on clients' patterns of care utilization.

38.2.1. These attributions may include, but are not limited to, primary care provider, RCCO regions, Behavioral Health Organizations (BHOs) and Single Entry Point (SEP) agencies.

38.2.2. Contractor Approach: Contractor shall implement a Client Attribution methodology using a tool, such as its Advantage Suite and Physician Performance Assessment (PPA) COTS applications, which provide various attribution methods based on the attribution's purpose and focus. Attributions to PCPs shall be based on client's recent utilization patterns as evident in the medical claims and encounter data. Attributions to RCCO regions and health plans can be based on any

combination of characteristics in the database, such as geography, aid category, Medicare-Medicaid dual coverage, provider taxonomy, and so forth.

38.2.3.   Requirement Stage: BIDM Implementation Contract Stage II

38.3.   Reference #3876: As the business rules for Client Attribution are subject to change over time, the Contractor shall archive the Client Attribution business rules so they can be retrieved by Department request for any historical point in time.

38.3.1.   Contractor Approach: The Contractor shall maintain detailed and transparent documentation to effectively administer and manage the attribution process and support any subsequent enrollment processes. The Contractor shall subject requests for modification of the business rules for attribution to formal change management processes to ensure strong controls and thorough documentation around the timing, nature, and business purpose of any changes. The Contractor shall archive former attribution business rules, so the Department can understand how assignments would have been processed at that point in time or for any historical look-back period.

38.3.2.   Requirement Stage: BIDM Implementation Contract Stage II

38.4.   Reference #3877: The Contractor shall proactively work with the Department to investigate, explain, and defend Client Attribution and ACC Monthly Enrollment implementations.

38.4.1.   Contractor Approach: The Contractor shall work closely and proactively with the Department to investigate and address questions from key stakeholders regarding client-attribution methods and the ACC Monthly Enrollment process and outcomes.

38.4.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38.5.   Reference #3878: The Contractor shall perform individual practice audits using external data provided by PCMPs or other organizations to determine why a particular client is or is not attributed to that entity, at the Department's request.

38.5.1.   Contractor Approach: The Contractor shall conduct audits of data from individual provider practices or other entities to answer questions related to attribution, or lack of attribution, of a specific client. The Contractor shall develop the content and format of a report to be shared with providers to support a consistent approach to audits, based on information from and as approved by the Department.

38.5.2.   Deliverable: Practice Panel Audit Report

38.5.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38.6.   Reference #3879: The Contractor shall implement, run, and store results of a Client Attribution algorithm for all Medicaid eligibles, by delivery system, such as Primary Care, Behavioral Health or Long-Term Care, on a monthly basis.

38.6.1.   Contractor Approach: Based on business rules approved by the Department, the Contractor shall implement, produce, and store results of a Client Attribution algorithm for all those who are Medicaid-eligible. The Contractor shall run the algorithm monthly by delivery system. As may be needed, the Contractor shall engage its subject matter experts (SMEs) in various delivery systems, including primary care, behavioral health, and long-term care to help refine inclusion/exclusion specifications and attribution logic.

38.6.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38.7. Reference #3880: The Contractor shall provide the ability to identify clients for enrollment in Health Benefit Plans and/or the Primary Care Provider, based on pre-existing provider-client relationships as determined by Department specifications.

38.7.1. Contractor Approach: The Contractor shall identify clients for enrollment in Health Benefit Plans and/or with PCPs. The BIDM shall enable clients to be included or excluded from the enrollment logic based on their recent experience with PCPs as demonstrated in the medical claims data as well as on any dimension desired by the Department, including but not limited to age, eligibility category, health status, and geographic location.

38.7.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38.8. Reference #3881: The Contractor shall monitor discrepancies and resolve any errors in ACC Monthly Enrollment submissions to the Core MMIS Contractor.

38.8.1. Contractor Approach: The Contractor shall monitor the monthly enrollment process to detect discrepancies and resolve any errors in the ACC Monthly Enrollment submissions to the Core MMIS Contractor. The Contractor shall develop and implement quality assurance processes to prevent, or detect and correct, any data or analytic errors before the information is submitted to the MMIS. If the Contractor identifies limitations or issues with source data received from the MMIS or other data suppliers, the Contractor shall work collaboratively with the Department and its business partners to implement data quality improvement plans and deploy work-around solutions where feasible. In the event data or analytic errors are detected after the ACC Monthly Enrollment data have been submitted to the MMIS, the Contractor shall submit corrected reports at no additional charge.

38.8.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38.9. Reference #3882: The Contractor shall document, maintain, and update the ACC Monthly Enrollment methodology as directed by the Department.

38.9.1. Contractor Approach: The Contractor shall document the ACC Monthly Enrollment methodology in detail for the Department's approval during the BIDM Implementation Contract Stages. The Contractor shall maintain and update this documentation during the BIDM Ongoing Operations and Enhancement Phase according to the Department-approved Change Management process.

38.9.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38.10. Reference #3883: As the business rules for ACC Monthly Enrollment are subject to change over time, the Contractor shall archive the ACC Monthly Enrollment business rules so they can be retrieved by Department request for any historical point in time.

38.10.1. Contractor Approach: The Contractor shall archive former attribution business rules, so the Department can understand how assignments would have been processed at that point in time or for any historical look-back period.

38.10.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38.11. Reference #3884: The Contractor shall perform all analytics and operational reporting necessary to support client enrollment.

38.11.1. The Contractor shall monitor disenrollments, opt-outs and any other program discontinuation from the Core MMIS, as directed by the Department.

38.11.2. The Contractor shall maintain all reports online for review by the Department for up to one- (1-) year.

38.11.3. Contractor Approach: The Contractor shall perform all analytics and operational reporting as directed by the Department to support client enrollment so as to enable the Department to be able to monitor disenrollments, opt-outs, and other discontinuations from the program. The Contractor shall maintain reports online for up to one (1) year.

38.11.4. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38.12. Reference #3885: The Contractor shall provide the ability to identify clients for enrollment in Health Benefit Plans and/or the Primary Care Provider based on any BIDM data, including client age, client eligibility category, health status and geographic location, as defined by the Department.

38.12.1. Contractor Approach: The Contractor shall identify clients for enrollment in Health Benefit Plans and/or with PCPs. The BIDM shall enable clients to be included or excluded from the enrollment logic based on any dimension desired by the Department, including but not limited to age, eligibility category, health status, and geographic location.

38.12.2. Requirement Stage: BIDM Implementation Contract Stage II

38.13. Reference #3886: The Contractor shall generate a monthly file for submission to the Core MMIS Contractor to support the ACC Monthly Enrollment process according to enrollment business rules as defined by the Department.

38.13.1. Contractor Approach: The Contractor shall produce a monthly client-level file that attributes clients to Health Benefit Plans and/or PCPs based on business rules defined by the Department. The Contractor shall generate the file in a format that meets Department and MMIS requirements, and it shall include the data elements needed by the Core MMIS to ensure clients are properly enrolled with the attributed health plan and/or PCP.

38.13.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

38.14. Reference #3887: The Contractor shall provide the ability to submit results of Attribution and Enrollment process to the Core MMIS so they are attributed to and enrolled in the Health Benefit Plan or Primary Care Provider.

38.14.1. Contractor Approach: The Contractor shall submit the enrollment file to the Core MMIS for enrollment processing using the secure, HIPAA- compliant, BIDM data interface the Contractor shall establish with that system. The Contractor shall work with the MMIS Contractor, as described in the approved agreement between the Contractor and the MMIS Contractor, to put in place processes to check and verify the file has been submitted accurately and completely so that clients are enrolled in the appropriate health benefit plan and/or PCP.

38.14.2. Requirement Stage: BIDM Implementation Contract Stage II

38.15. Reference #3888: The Contractor shall maintain the data and linkages necessary to develop, and provide reports that link clients to their primary providers, identifies clients without providers, and identifies clients who are in need a service that is not currently available, either due to lack of providers or lack of referral to appropriate providers.

38.15.1. Contractor Approach: The Contractor shall maintain the data and linkages needed to develop and produce reports that link clients to primary providers and identify clients without assigned providers. Based on the information available, The Contractor shall also identify clients who

need a service not currently available due to a shortage of qualified providers, program capacity, or other factor.

38.15.2.   Requirement Stage: BIDM Implementation Contract Stage II

39. PROGRAM AND PROVIDER PERFORMANCE MEASUREMENT

39.1.   Reference #3889: The Contractor shall update ACC KPI metrics baseline measurements annually or as directed by the Department.

39.1.1.   Contractor Approach: The Contractor shall update the current and subsequently updated ACC KPI performance metric baselines, annually or as directed by the Department.

39.1.1.1.   During the BIDM Ongoing Operations and Enhancement Contract Stage, the Contractor shall produce reports that compare current performance to baselines or benchmarks, such as:

39.1.1.1.1.   Overall KPI trends and comparisons to benchmarks for rolling 12-month periods to support reporting to the legislature and to CMS.

39.1.1.1.2.   Monthly KPI comparisons to baselines by RCCO and PCMP to provide feedback to providers and determine incentive payments for achieving specified levels of KPI improvement.

39.1.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.2.   Reference #3890: The Contractor shall develop reporting that utilizes commonly-used language, rather than vendor-produced proprietary language.

39.2.1.   Contractor Approach: The Contractor shall design all reports for transparency and ease of interpretation, using visually compelling displays and common English-language descriptions. The Contractor shall clearly and simply describe measures and methodologies.

39.2.2.   Requirement Stage: BIDM Implementation Contract Stage II

39.3.   Reference #3891: The Contractor shall develop and modify provider performance, such as cost and utilization, baselines in conjunction with the Department.

39.3.1.   Contractor Approach: The Contractor shall develop and modify provider performance, such as cost and utilization performance baselines, based on information from and as approved by the Department.

39.3.2.   Requirement Stage: BIDM Implementation Contract Stage III

39.4.   Reference #3892: The Contractor shall generate provider performance, such as cost and utilization, baselines, on a defined schedule, once the methodology has been approved by the Department.

39.4.1.   Contractor Approach: Once the reporting methodology has been approved by the Department, the Contractor shall generate provider performance reports on cost and utilization as well as other topics, on a defined schedule.

39.4.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.5.   Reference #3893: The Contractor shall create and maintain a suite of Department-defined and Contractor-developed on-line queries and reports which allow users to choose from multiple pre-built defined parameters such as provider number, procedure code and date of service, singly or in combination, to generate user customized results.

39.5.1.   Contractor Approach: The Contractor shall deliver its BIDM solution integrating a full range of reporting capabilities, including dashboards, scheduled production reports, prompted reports and

queries, user-friendly ad hoc reporting, and geo-mapping. The Contractor shall develop, document, maintain, and provide a suite of Department-defined online queries and reports allowing users to choose from multiple pre-built defined parameters, such as provider number, procedure code and date of service, singly or in combination, to generate user-specified results.

39.5.2. Requirement Stage: BIDM Implementation Contract Stage III

39.6. Reference #3894: The Contractor shall provide industry-best practice analytics on behalf of the Department, including, and not limited to, predictive modeling, creating client risk scores, performance monitoring and benchmarking, evaluating utilization variances, and creating client profiles for providers.

39.6.1. This shall include performing both data mining and statistical analysis.

39.6.2. Contractor Approach: The Contractor shall provide industry-best practice analytics to support the Department, including but not limited to:

39.6.2.1. DCG models from Verisk Health for measuring client health status/risk and projecting future costs and the likelihood of hospitalization.

39.6.2.2. Medical Episode Grouper (MEG) for evaluating provider treatment practices, measuring utilization and cost variances from a peer group or other benchmark, and applying risk adjustment to take into account differences in disease severity and the member's overall health risk.

39.6.2.3. Advantage Suite's Measures Catalog and methods for performance monitoring and benchmarking.

39.6.2.4. A PHR, or client profile, giving providers clinically rich output from the DCG and MEG methodologies and displaying the resulting client health history for ease of interpretation and follow up, such as by highlighting gaps in recommended care.

39.6.2.5. SAS analytics for best-in-class data mining and statistical-analysis capabilities.

39.6.3. Requirement Stage: BIDM Implementation Contract Stage III

39.7. Reference #3895: The Contractor shall develop a methodology, in conjunction with the Department, that identifies client health status, such as identifying clients that are at moderate risk for future hospitalization and/or emergency room utilization and identifying clients that may require a higher level of care.

39.7.1. Contractor Approach: The Contractor shall deliver models, such as DCG models from Verisk Health, including models similar to the following:

39.7.1.1. The DCG All-Encounter Model for Medicaid, for measuring client health status/risk and projecting future cost

39.7.1.2. The DCG Likelihood of Hospitalization (LOH) Model for projecting the likelihood of hospitalization.

39.7.2. Requirement Stage: BIDM Implementation Contract Stage III

39.8. Reference #3896: The Contractor shall calculate continuous client Health Benefit Plan enrollment for defined periods, such as fiscal year, calendar year, quarter and month, for distinct individuals and population aggregates per Department specifications and provide the ability for authorized BIDM users to incorporate the data into analyses, queries and reports.

39.8.1.	Contractor Approach: The Contractor shall deliver functionality, such as that found in Cognos and SAS, to calculate continuous client Health Benefit Plan enrollment for defined periods, such as fiscal year, calendar year, quarter and month, for distinct individuals and population aggregates, per Department specifications. The Contractor's tools shall allow authorized BIDM users to incorporate the data into analyses, queries and reports.

39.8.2.	Requirement Stage: BIDM Implementation Contract Stage III

39.9.	Reference #3897: The Contractor shall calculate program performance metrics as directed by the Department.

39.9.1.	Contractor Approach: The Contractor shall provide a system to calculate program performance metrics, such as its Advantage Suite Measures Catalog, which delivers a large number of pre-defined program performance metrics possessing the flexibility to allow the Contractor the ability to calculate new metrics as directed by the Department.

39.9.1.1.	The Contractor shall provide its Advantage Suite Measures Catalog and may only use another replacement measures catalog if the Department approves the use of the replacement catalog.

39.9.2.	Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.10.	Reference #3898: The Contractor shall be responsible for developing reports specific to program quality performance in consultation with the Department.

39.10.1.	Contractor Approach: In consultation with the Department, the Contractor shall develop reports on program quality performance metrics and develop program quality performance reports.

39.10.2.	Deliverable: Program Quality Performance Reports

39.10.3.	Deliverable Stage: BIDM Implementation Contract Stage III

39.11.	Reference #3899: The Contractor shall generate reports of client health status on an agreed upon schedule.

39.11.1.	Contractor Approach: The Contractor shall generate reports of client health status on an agreed upon schedule, as described in the System Operation and Maintenance Plan.

39.11.2.	Deliverable: Client Health Status Reports

39.11.3.	Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.12.	Reference #3900: The Contractor shall assist in Department development of analytical methodologies to measure program performance and assist the Department in strategic planning activities.

39.12.1.	Contractor Approach: The Contractor shall assist the Department in the application of analytical methodologies to measure program performance and strategic planning activities.

39.12.2.	Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.13.	Reference #3901: The Contractor shall make monthly performance on ACC KPI metrics available to all ACC participating providers via the BIDM Web Portal.

39.13.1.	Contractor Approach: The Contractor shall make reports on KPI performance metrics and incentive payments available to all ACC participating providers via the BIDM Web Portal.

39.13.2.	Deliverable: KPI Metric Performance Reports

39.13.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.14. Reference #3902: The Contractor shall develop, document, maintain and provide a methodology, upon Department approval, to identify potentially preventable events.

39.14.1. Contractor Approach: The Contractor shall develop, document, maintain and provide measures on potentially preventable events that include National Quality Forum (NQF)-endorsed measures in the BIDM. These may include the Advantage Suite Measures Catalog feature, that contains a set of measures to identify the prevalence of preventable events and measure how well the Department's health care providers are screening for preventable events, such as cancer screens, vaccinations, and immunizations. In addition, The Contractor shall deliver measures of avoidable admission for ambulatory care sensitive conditions from the AHRQ Prevention Quality Indicators (PQIs); these are conditions for which hospitalization can potentially be avoided through timely outpatient treatment that prevents complications or disease progression.

39.14.2. Deliverable: Potentially Preventable Event Reports

39.14.3. Deliverable Stage: BIDM Implementation Contract Stage III

39.15. Reference #3903:   The Contractor shall calculate Department-approved quality metrics for reporting through the BIDM Web Portal.

39.15.1. The calculations shall include baseline and actual performance across Medicaid programs.

39.15.2. Contractor Approach: The Contractor shall deliver a catalog, such as its Advantage Suite Measures Catalog, containing nationally-endorsed quality metrics, with flexibility to support the calculation of custom measures for the Department's approval. The Contractor shall calculate baseline or benchmark and actual performance across Medicaid programs. Measures from the catalog shall be accessible for reporting through the BIDM Web Portal, with select measures available to Providers as described in the approved DSD.

39.15.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.16. Reference #3904:   The Contractor shall develop incentive payment reports for dissemination through the BIDM Web Portal.

39.16.1. Contractor Approach: The Contractor shall support the Department by developing provider incentive payment reports and disseminating them on the BIDM Web Portal. The Contractor shall bring capabilities to accurately and reliably trend the KPIs and compare performance to baselines to determine whether RCCOs and PCMPs qualify for incentives and, if so, at which tier.

39.16.2. Deliverable: Incentive Payment Reports

39.16.3. Deliverable Stage: BIDM Implementation Contract Stage III

39.17. Reference #3905: The Contractor shall develop, document, maintain, and provide prompt-based reports per Department specifications summarizing information related to clients with chronic conditions, the associated condition(s), and other related characteristics, such as risk scores, severity levels and date of onset.

39.17.1. Contractor Approach: The Contractor shall develop, document, maintain, and provide prompt-based reports per Department specifications summarizing information related to clients with chronic conditions, the associated condition(s), and other related characteristics, such as risk scores, severity levels and date of onset. The Contractor shall cause all users including physicians

to be able to access information on clients with chronic conditions in the physician engagement solution, with drill down to individual client detail in the PHR, based on the provider's user role.

39.17.1.1. The Contractor also shall enable the authorized BIDM users to access a set of chronic care management reports in the BIDM. The Contractor's episodes of care-based reporting in the BIDM shall allow the Department to trend the severity of a chronic condition over time and monitor changes in the managing physician, the frequency of flare-ups, and compliance with recommended care standards. The Contractor also shall develop additional prompted queries in the BIDM as needed to meet user requirements.

39.17.2. Deliverable: Chronic Condition Reports

39.17.3. Deliverable Stage: BIDM Implementation Contract Stage III

39.18. Reference #3906: The Contractor shall provide date-sensitive data in the BIDM per Department specifications identifying clients with chronic conditions, the associated condition(s), and other related characteristics, such as risk scores, severity levels and date of onset.

39.18.1. The Contractor shall provide the ability for authorized BIDM users to incorporate the data into analyses, queries and reports.

39.18.2. Contractor Approach: Contractor shall deliver a tool, such as its MEG, that defines acute and chronic conditions and groups all claims such as by inpatient, outpatient, pharmacy and LTC, for each condition into a summary episode record based on the course of treatment over time, considering dates of onset and "clean periods". This tool shall include measures of illness severity using disease staging and member health risk scores using DCGs. the BIDM shall enable authorized BIDM users to incorporate the tool's data into analyses, queries and reports.

39.18.3. Requirement Stage: BIDM Implementation Contract Stage III

39.19. Reference #3907: In consultation with the Department, the Contractor shall provide to the Department, a quarterly cost saving analysis for the ACC program, which presents opportunities for appropriate cost savings and utilization reductions.

39.19.1. Contractor Approach: In consultation with the Department, the Contractor shall provide a quarterly cost savings analysis for the ACC program, presenting opportunities for appropriate cost savings and utilization reductions. The Contractor shall leverage dashboards and other flexible reporting capabilities of the BIDM to generate current and historical ACC reporting and analytics on an agreed-upon schedule. The Contractor shall develop, document, maintain, and provide per Department specifications a variety of recurring production reports to support the ACC program, or related programs, and provider monitoring.

39.19.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.20. Reference #3908: The Contractor shall work with the Department and at times act on behalf of the Department to research, review, identify, and evaluate potential sources of additional data for reporting activities to support Department initiatives.

39.20.1. Contractor Approach: The Contractor shall proactively research, review, identify, and evaluate potential sources of additional data for reporting activities to support the Department's initiatives. The Contractor shall leverage its knowledge of the Department's defined BIDM data interfaces and exchanges and the Contractor's experience working with diverse data sets on behalf of other payers, providers, health information and insurance exchanges to advise the Department on new data sources and data elements to incorporate in performance reporting. The

Contractor shall utilize the Department's defined Change Management Process to analyze the impact of adding new data to the BIDM.

39.20.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.21.   Reference #3909: The BIDM shall provide the ability for authorized BIDM users to compare Department and Medicare rates and, if provided, commercial rates and other states' Medicaid and CHP rates and to incorporate those comparisons into other analyses and reports.

39.21.1.   The contractor will receive Department rates from the Core MMIS and PBMS, but shall obtain and upload Medicare data. Any additional rate data will be provided by the Department.

39.21.2.   Contractor Approach: The Contractor shall employ the following approach to support the Department's rate-setting objectives:

39.21.2.1.   Contractor shall obtain Medicare fee schedule data for Colorado and load the data annually into the BIDM data warehouse and make it accessible to Contractor staff and Department analysts for incorporating into queries, reports, and analyses.

39.21.2.2.   The Department shall authorize the Medicaid rate data to be made available to Contractor through the Core MMIS and the PBMS interfaces. The Department also will provide any additional rate schedules of interest.

39.21.3.   Requirement Stage: BIDM Implementation Contract Stage III

39.22.   Reference #3910:   The Contractor shall develop, document, provide, and maintain a report comparing current Department and Medicare rates.

39.22.1.   These reports shall be run at least semi-annually on a schedule agreed upon by the Department and Contractor. The report shall also be available for authorized BIDM users to run on an ad hoc basis.

39.22.2.   Contractor Approach: The Contractor shall develop, document, provide, and maintain a report comparing current Department and Medicare rates and run the report semi-annually on a schedule mutually agreed upon with the Department. The Contractor shall make the report available to authorized BIDM users to run on an ad hoc basis. The Contractor shall cause the report to show the Medicare rate, the Medicaid rate, any relevant characteristics, the difference between the Medicare rate and the Medicaid rate, and the Medicaid percentage of the Medicare rate, calculated as Medicaid rate/Medicare rate, for specified time periods by procedure or service code, and modifier where it impacts reimbursement. The Contractor shall provide reports that include aggregate percentage comparisons for groups of service codes by provider taxonomy groupings or other policy relevant groupings.

39.22.3.   Deliverable: Department and Medicare Rate Comparison Reports

39.22.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.23.   Reference #3911: The Contractor shall create and maintain data comparing current and historical Department and Medicare rates.

39.23.1.   This data shall be available for queries and reports run by authorized BIDM users.

39.23.2.   Contractor Approach: For data that is available in the BIDM, the Contractor shall create and maintain both current and historic rate data for comparison purposes and make it accessible to Contractor staff and authorized BIDM users for incorporating into queries, reports, and analyses.

39.23.3.   Requirement Stage: BIDM Implementation Contract Stage III

39.24. Reference #3912: The Contractor shall calculate and report, on a defined schedule, provider incentive payment calculations once the methodology has been approved by the Department.

39.24.1. The Contractor shall report this information at least quarterly, as determined by the Department.

39.24.2. Contractor Approach: Once the Department has approved the methodology, The Contractor shall calculate and report, on a defined schedule at least quarterly, provider incentive payment calculations.

39.24.3. Deliverable: Provider Payment Incentive Calculations

39.24.4. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.25. Reference #3913: The Contractor shall develop and modify the methodology to calculate provider incentive payments in conjunction with the Department.

39.25.1. Contractor Approach: The Contractor shall develop and modify a Department-approved method for calculating provider incentive payments, based on information from the Department.

39.25.2. Requirement Stage: BIDM Implementation Contract Stage III

39.26. Reference #3914: The Contractor shall transfer incentive payment data to the Core MMIS contractor for payment, in format agreed to by the Contractor and the Core MMIS contractor or as directed by the Department, for processing provider payments.

39.26.1. Contractor Approach: The Contractor shall submit a file with incentive payment amounts to the Core MMIS Contractor for payment processing, in an agreed upon format and using the secure BIDM/MMIS interface, as directed by the Department.

39.26.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.27. Reference #3915: The Contractor shall work collaboratively with the Core MMIS contractor to resolve identified provider incentive payment issues in a timely manner as requested by the Department.

39.27.1. Contractor Approach: The Contractor shall support the Core MMIS Contractor and the Department as needed to resolve provider questions or concerns in a timely manner.

39.27.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.28. Reference #3916: The Contractor shall perform quarterly calculations, by provider, for all ACC KPI metrics to generate ACC provider incentive payments.

39.28.1. Contractor Approach: The Contractor shall calculate all ACC KPI metrics, by provider, on a quarterly schedule, to generate ACC provider incentive payment amounts.

39.28.2. Deliverable: Quarterly ACC KPI Calculations

39.28.3. Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.29. Reference #3917: The Contractor shall implement a Department-approved Provider performance measurement methodology for purposes of incentive payment to Providers.

39.29.1. Contractor Approach: The Contractor shall implement a Department-approved method for measuring provider performance, based on information from the Department.

39.29.2. Requirement Stage: BIDM Implementation Contract Stage III

39.30. Reference #3918: The Contractor shall generate current and historical ACC reporting and analytics and will generate those reports on an agreed upon schedule.

39.30.1.   Contractor Approach: The Contractor shall generate current and historical ACC reporting and analytics and shall generate those reports on an agreed upon schedule.

39.30.2.   Deliverable: ACC Reporting and Analytics

39.30.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

39.31.   Reference #3919: The Contractor shall develop, document, maintain, and provide per Department specifications client-based and aggregated prompt-based reports of continuous client Health Benefit Plan enrollment, including information on fiscal year, calendar year, quarter and month.

39.31.1.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications client-based and aggregated prompt-based reports of continuous client Health Benefit Plan enrollment, including information on fiscal year, calendar year, quarter and month.

39.31.2.   Requirement Stage: BIDM Implementation Contract Stage III

39.32.   Reference #3920: The Contractor shall develop, document, maintain, and provide a prompt-based report of Paid Medical Services Per-Capita Costs Across Age Groups per Department specifications.

39.32.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.32.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications a prompt-based report of paid medical services per-capita costs across age groups. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

39.32.3.   Deliverable: Paid Medical Services Per-Capita Costs Across Age Groups Report

39.32.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.33.   Reference #3921: The Contractor shall develop, document, maintain, and provide per Department specifications and approval, an ACC Management Report which details program enrollment, program performance on Key Performance Indicators, and other performance measures for the ACC Program.

39.33.1.   The ACC Management Report shall include a standardized presentation slide deck for internal and external communication, based on Department specifications and approval.

39.33.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications and approval, an ACC Management Report that details program enrollment, program performance on Key Performance Indicators, and other performance measures for the ACC Program. The Contractor shall develop a standardized presentation slide deck for the ACC Management Report for internal and external communication, based on Department specifications and approval. The ACC Management Report shall be produced no more often than monthly, as described in the Communication Management Plan.

39.33.3.   Deliverable: ACC Management Report

39.33.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.34.   Reference #3922: The Contractor shall develop, document, maintain, and provide per Department specifications the RCCO Roster Report.

39.34.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.34.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications the RCCO Roster Report. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.34.3.   Deliverable: RCCO Roster Report

39.34.4.   Deliverable Stage: BIDM Implementation Contract Stage II

39.35.   Reference #3923: The Contractor shall develop, document, maintain, and provide per Department specifications an ACC Newsletter.

39.35.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.35.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications an ACC Newsletter. The Contractor shall produce and distribute the newsletter as agreed upon and outlined in the Communication Management Plan

39.35.3.   Deliverable: ACC Newsletter

39.35.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.36.   Reference #3924: The Contractor shall develop, document, maintain, and provide per Department specifications a KPI Trends Report.

39.36.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.36.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications a KPI Trends Report. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.36.3.   Deliverable: KPI Trends Report

39.36.4.   Deliverable Stage: BIDM Implementation Contract Stage II

39.37.   Reference #3925: The Contractor shall develop, document, maintain, and provide per Department specifications Cost Savings/Impact Analyses.

39.37.1.   The Contractor shall produce and distribute the analyses as agreed upon and outlined in the Communication Management Plan

39.37.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications Cost Savings/Impact Analyses. The Contractor shall produce and distribute the analyses as agreed upon and outlined in the Communication Management Plan

39.37.3.   Deliverable: Cost Savings/Impact Analyses

39.37.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.38.   Reference #3926: The Contractor shall develop, document, maintain, and provide per Department specifications and approval, a monthly ACC Impact Analysis file.

39.38.1.   The Contractor shall produce and distribute the files as agreed upon and outlined in the Communication Management Plan

39.38.2.　Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications and approval, a monthly ACC Impact Analysis file. Contractor shall produce and distribute the files as agreed upon and outlined in the Communication Management Plan

39.38.3.　Deliverable: ACC Impact Analysis File

39.38.4.　Deliverable Stage: BIDM Implementation Contract Stage III

39.39.　Reference #3927: The Contractor shall develop, document, maintain, calculate, and provide per Department specifications quarterly ACC Incentive Payment Calculations.

39.39.1.　The Contractor shall produce and distribute the calculations as agreed upon and outlined in the Communication Management Plan

39.39.2.　Contractor Approach: The Contractor shall develop, document, maintain, calculate, and provide per Department specifications quarterly ACC Incentive Payment Calculations. The Contractor shall produce and distribute the calculations as agreed upon and outlined in the Communication Management Plan

39.39.3.　Deliverable: ACC Incentive Payment Calculations

39.39.4.　Deliverable Stage: BIDM Implementation Contract Stage III

39.40.　Reference #3928: The Contractor shall develop, document, maintain, calculate, and provide per Department specifications Comprehensive Primary Care initiative (CPCi) attributions.

39.40.1.　The Contractor shall produce and distribute the attributions as agreed upon and outlined in the Communication Management Plan

39.40.2.　Contractor Approach: The Contractor shall develop, document, maintain, calculate, and provide per Department specifications CPCi attributions. The Contractor shall produce and distribute the attributions as agreed upon and outlined in the Communication Management Plan

39.40.3.　Deliverable: CPCi Attributions

39.40.4.　Deliverable Stage: BIDM Implementation Contract Stage II

39.41.　Reference #3929: The Contractor shall develop, document, maintain, and provide per Department specifications reporting for the Medicare/Medicaid Demonstration program, also known as the Full Benefit Medicare-Medicaid Enrollee (FBMME) program and the ACC: Medicare-Medicaid Program (ACC:MMP).

39.41.1.　This reporting shall include, but is not limited to, all of the following:

39.41.1.1.　Monthly client eligibility for the Medicare-Medicaid demonstration.

39.41.1.2.　Raw claims extract of Medicare-Medicaid merged data set for client care coordination – distributed monthly.

39.41.1.3.　Raw claims extract of Medicare-Medicaid merged data set for Department's actuary for shared savings calculations.

39.41.1.4.　Quarterly Demonstration roster reports that includes:

39.41.1.4.1.　Prospective provider attributions and client risk scores.

39.41.1.4.2.　Retrospective reconciliations for the prior quarter.

39.41.2.	The ability to report on existing ACC performance measures, such as cost and utilization, specific to the Medicare-Medicaid population, separate from other populations.

39.41.3.	The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.41.4.	Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications reporting for the ACC:MMP. The Contractor shall cause the reports to include the information and capabilities specified in this section. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

39.41.5.	Deliverable: Medicare/Medicaid Demonstration Program Reports

39.41.6.	Deliverable Stage: BIDM Implementation Contract Stage II

39.42.	Reference #3930: The Contractor shall develop, document, maintain, and provide per Department specifications an All Members Report - RCCO, PCMP.

39.42.1.	The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.42.2.	Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications an All Members Report - RCCO, PCMP. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.42.3.	Deliverable: All Members Reports – RCCO, PCMP

39.42.4.	Deliverable Stage: BIDM Implementation Contract Stage II

39.43.	Reference #3931: The Contractor shall develop, document, maintain, and provide per Department specifications a KPI Members List - RCCO, PCMP.

39.43.1.	The Contractor shall produce and distribute the members lists as agreed upon and outlined in the Communication Management Plan

39.43.2.	Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications a KPI Members List - RCCO, PCMP. The Contractor shall produce and distribute the members lists as agreed upon and outlined in the Communication Management Plan.

39.43.3.	Deliverable: KPI Members List – RCCO, PCMP

39.43.4.	Deliverable Stage: BIDM Implementation Contract Stage II

39.44.	Reference #3932: The Contractor shall develop, document, maintain, and provide per Department specifications a Potentially Preventable Members List.

39.44.1.	The Contractor shall produce and distribute the members lists as agreed upon and outlined in the Communication Management Plan

39.44.2.	Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications a Potentially Preventable Members List. The Contractor shall produce and distribute the members lists as agreed upon and outlined in the Communication Management Plan

39.44.3.	Deliverable: Potentially Preventable Members List

39.44.4.	Deliverable Stage: BIDM Implementation Contract Stage III

39.45.   Reference #3933: The Contractor shall develop, document, maintain, and provide per Department specifications a Utilization/Quality Members List.

39.45.1.   The Contractor shall produce and distribute the members lists as agreed upon and outlined in the Communication Management Plan

39.45.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications a Utilization/Quality Members List. The Contractor shall produce and distribute the members lists as agreed upon and outlined in the Communication Management Plan

39.45.3.   Deliverable: Utilization/Quality Members List

39.45.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.46.   Reference #3934: The Contractor shall develop, document, maintain, and provide per Department specifications a Care Management Report.

39.46.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.46.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications a Care Management Report. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.46.3.   Deliverable: Care Management Reports

39.46.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.47.   Reference #3935: The Contractor shall develop, document, maintain, and provide per Department specifications Patient Profiles.

39.47.1.   The Contractor shall produce and distribute the profiles as agreed upon and outlined in the Communication Management Plan

39.47.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications Patient Profiles. The Contractor shall produce and distribute the profiles as agreed upon and outlined in the Communication Management Plan

39.47.3.   Deliverable: Patient Profiles

39.47.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.48.   Reference #3936: The Contractor shall develop, document, maintain, and provide per Department specifications a Pharmacy Report.

39.48.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.48.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications a Pharmacy Report. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.48.3.   Deliverable: Pharmacy Reports

39.48.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.49.   Reference #3937: The Contractor shall develop, document, maintain, and provide per Department specifications a Pharmacy Contraindication Report.

39.49.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.49.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications a Pharmacy Contraindication Report. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.49.3.   Deliverable: Pharmacy Contradiction Reports

39.49.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.50.   Reference #3938: The Contractor shall develop, document, maintain, conduct, and provide per Department specifications the Client Tagging Report.

39.50.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.50.2.   Contractor Approach: The Contractor shall develop, document, maintain, conduct, and provide per Department specifications the Client Tagging Report. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

39.50.3.   Deliverable: Client Tagging Reports

39.50.4.   Deliverable Stage: BIDM Implementation Contract Stage III

39.51.   Reference #3939: The Contractor shall develop, document, maintain, conduct, and provide per Department specifications ACC Reattribution Analyses.

39.51.1.   The Contractor shall produce and distribute the analyses as agreed upon and outlined in the Communication Management Plan

39.51.2.   Contractor Approach: The Contractor shall develop, document, maintain, conduct, and provide per Department specifications ACC Reattribution Analyses. The Contractor shall produce and distribute the analyses as agreed upon and outlined in the Communication Management Plan

39.51.3.   Deliverable: ACC Reattribution Analyses

39.51.4.   Deliverable Stage: BIDM Implementation Contract Stage II

39.52.   Reference #3940: The Contractor shall develop, document, maintain, and provide per Department specifications an Attribution Summary report.

39.52.1.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

39.52.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications an Attribution Summary report. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

39.52.3.   Deliverable: Attribution Summary Reports

39.52.4.   Deliverable Stage: BIDM Implementation Contract Stage II

40. ADDITIONAL CLIENT ATTRIBUTION AND ENROLLMENT ACTIVITIES

40.1.   Reference #3941: The Contractor shall develop, document, maintain, and provide per Department specifications Provider Attribution Analyses.

40.1.1.   The Contractor shall produce and distribute the analyses as agreed upon and outlined in the Communication Management Plan

40.1.2. Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications Provider Attribution Analyses. The Contractor shall produce and distribute the analyses as agreed upon and outlined in the Communication Management Plan

40.1.3. Deliverable: Provider Attribution Analyses

40.1.4. Deliverable Stage: BIDM Implementation Contract Stage II

41. ADDITIONAL PROGRAM AND PROVIDER PERFORMANCE MEASUREMENT

41.1. Reference #3942: The Contractor shall develop, document, maintain, and provide per Department specifications an Enrollment Summary report.

41.1.1. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.1.2. Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications an Enrollment Summary report. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.1.3. Deliverable: Enrollment Summary Reports

41.1.4. Deliverable Stage: BIDM Implementation Contract Stage II

41.2. Reference #3943: The Contractor shall develop, document, maintain, and provide per Department specifications a report of Potential Enrollments.

41.2.1. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.2.2. Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications a report of Potential Enrollments. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.2.3. Deliverable: Potential Enrollments Reports

41.2.4. Deliverable Stage: BIDM Implementation Contract Stage II

41.3. Reference #3944: The Contractor shall develop, document, maintain, and provide per Department specifications an ACC Churn Report.

41.3.1. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.3.2. Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications an ACC Churn Report. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.3.3. Deliverable: ACC Churn Reports

41.3.4. Deliverable Stage: BIDM Implementation Contract Stage III

41.4. Reference #3945: The Contractor shall generate a prompt-based report on providers with high rates of denied claims/encounters, by either number or paid/denied ratio, or incorrect TPL payments, such as entries of "TPL paid $0", to identify providers in need of additional training, support, or outreach, and perform and monitor reporting on these providers and notify the authorized BIDM users of findings.

41.4.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

41.4.2.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.4.3.   Contractor Approach: The Contractor shall produce prompt-based reports meeting the requirement through BIDM components, such as through the Cognos Event Studio, to set up periodic monitoring reports in the data warehouse.

41.4.4.   Deliverable: Additional Provider Support Reports

41.4.5.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

41.5.   Reference #3946: The Contractor shall develop, document, maintain, and provide reports analyzing claims processing and payment information to evaluate timely reimbursement.

41.5.1.   These reports shall include totals and stratifications, such as Health Benefit Plan, provider, RCCO and provider type, as directed by the Department.

41.5.2.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.5.3.   Contractor Approach: The Contractor shall develop, document, maintain, and provide reports analyzing claims processing and payment information to evaluate timely reimbursement.

41.5.3.1.   Users shall be able to run reports assessing the number and percentage of claims filed and finalized within certain time periods by provider type, claim type, and by other dimensions.

41.5.4.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.5.5.   Deliverable: Timely Reimbursement Reports

41.5.6.   Deliverable Stage: BIDM Implementation Contract Stage III

41.6.   Reference #3947: The Contractor shall develop, document, maintain, and provide reports analyzing encounter processing to evaluate timely filing, fiscal controls, and ranking.

41.6.1.   These reports shall include totals and stratifications, such as Health Benefit Plan, provider, RCCO and provider type, as directed by the Department.

41.6.2.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.6.3.   Contractor Approach: The Contractor shall develop, document, maintain, and provide reports analyzing encounter processing to evaluate timely filing, fiscal controls, and ranking, as specified.

41.6.3.1.   Users shall be able to run reports assessing the number and percentage of encounters received and processed by the health plan and/or MMIS within certain time periods by health plan, RCCO, provider type, claim type, and other dimensions.

41.6.4.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.6.5.   Deliverable: Timely Filing, Fiscal Controls and Ranking Reports

41.6.6.   Deliverable Stage: BIDM Implementation Contract Stage III

41.7.   Reference #3948: The Contractor shall develop, document, maintain, and provide prompt-based reports analyzing the frequency, extent, and type of provider and other claims/encounters processing errors.

41.7.1.   These reports shall include totals and stratifications, such as Health Benefit Plan, provider, RCCO and provider type, as directed by the Department.

41.7.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time. Prompts shall be defined when the reports are developed.

41.7.3.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.7.4.   Contractor Approach: The Contractor shall develop, document, maintain, and provide prompt-based reports analyzing the frequency, extent, and type of provider and other claims/encounters processing errors, as specified.

41.7.4.1.   These queries shall allow Department users to examine the frequency, volume, and type of errors by any meaningful stratification supported by the data, for example, by health plan or provider type.

41.7.5.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan

41.7.6.   Deliverable: Processing Error Frequency Reports

41.7.7.   Deliverable Stage: BIDM Implementation Contract Stage III

41.8.   Reference #3949: The Contractor shall develop, document, maintain, and provide prompt-based reports per Department specifications of unduplicated client counts for defined periods, such as fiscal year, calendar year, quarter and month, and for various programs and Health Benefit Plans.

41.8.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.8.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide prompt-based reports per Department specifications of unduplicated client counts for defined periods, using the following approach: standard functionality in the BIDM, such as through Cognos and Advantage Suite.

41.8.3.   Deliverable: Unduplicated Client Count Reports

41.8.4.   Deliverable Stage: BIDM Implementation Contract Stage III

41.9.   Reference #3950: The Contractor shall calculate unduplicated client counts for defined periods, such as fiscal year, calendar year, quarter and month, for various programs and Health Benefit Plans per Department specifications and provide the ability for authorized BIDM users to incorporate into analyses, queries, and reports.

41.9.1.   The Contractor shall produce the calculations as agreed upon and outlined in the Communication Management Plan.

41.9.2.   Contractor Approach: The Contractor shall deliver analytical tools that support the calculation of unduplicated client counts following the Department's stated specifications. The Contractor shall produce the calculations as agreed upon and outlined in the Communication Management Plan.

41.9.3. Deliverable: Unduplicated Client Count Calculations

41.9.4. Deliverable Stage: BIDM Implementation Contract Stage II

41.10. Reference #3951: The Contractor shall develop, document, maintain, and provide per Department specifications client-based and aggregated prompt-based reports of continuous client program eligibility, including the periods for fiscal year, calendar year, quarter and month.

41.10.1. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.10.2. Contractor Approach: The Contractor shall deliver analytical tools that support the calculation of continuous client program eligibility following the Department's stated specifications, along with prompt-based versions of the reports.

41.10.3. Deliverable: Continuous Client Program Eligibility Reports

41.10.4. Deliverable Stage: BIDM Implementation Contract Stage II

41.11. Reference #3952: The Contractor shall calculate continuous client program eligibility for defined periods, such as fiscal year, calendar year, quarter and month, for distinct individuals and population aggregates per Department specifications and provide the ability for authorized BIDM users to incorporate the data into analyses, queries, and reports.

41.11.1. Contractor Approach: The Contractor shall deliver analytical tools that support the calculation of continuous client program eligibility for defined periods, following the Department's stated specifications, enabling authorized BIDM users to incorporate the data into analyses, queries, and reports.

41.11.2. Deliverable: Continuous Client Program Eligibility Calculations

41.11.3. Deliverable Stage: BIDM Implementation Contract Stage III

41.12. Reference #3953: The Contractor shall develop, document, maintain, and provide prompt-based reports per Department specifications continuous provider enrollment for defined periods, such as fiscal year, calendar year, quarter and month, and for various programs.

41.12.1. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.12.2. Contractor Approach: The Contractor shall deliver analytical tools that support the calculation of continuous provider enrollment for defined periods, following the Department's stated specifications, along with prompt-based versions of the reports.

41.12.3. Deliverable: Continuous Provider Enrollment Reports

41.12.4. Deliverable Stage: BIDM Implementation Contract Stage III

41.13. Reference #3954: The Contractor shall calculate continuous provider enrollment for defined periods, such as fiscal year, calendar year, quarter and month, for distinct entities and population aggregates per Department specifications and provide the ability for authorized BIDM users to incorporate the data into analyses, queries, and reports.

41.13.1. Contractor Approach: The Contractor shall deliver analytical tools that support the calculation of continuous provider enrollment for defined periods, following the Department's stated

specifications, enabling authorized BIDM users to incorporate the data into analyses, queries, and reports.

41.13.2.   Deliverable: Continuous Provider Enrollment Calculations

41.13.3.   Deliverable Stage: BIDM Implementation Contract Stage III

41.14.   Reference #3955: The Contractor shall develop, document, maintain, and provide prompt-based reports per Department specifications continuous provider participation, such as that evidenced by claims/encounter data, for defined periods, such as fiscal year, calendar year, quarter and month, and for various programs.

41.14.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.14.2.   Contractor Approach: The Contractor shall deliver analytical tools that create prompt-based reports of continuous provider participation for defined periods such as that evidenced by claims/encounter data, following the Department's stated specifications.

41.14.3.   Deliverable: Continuous Provider Enrollment Reports

41.14.4.   Deliverable Stage: BIDM Implementation Contract Stage III

41.15.   Reference #3956: The Contractor shall calculate continuous provider participation, such as that evidenced by claims/encounter data, for defined periods, such as fiscal year, calendar year, quarter and month, for distinct entities and population aggregates per Department specifications and provide the ability for authorized BIDM users to incorporate the data into analyses, queries, and reports.

41.15.1.   Contractor Approach: The Contractor shall deliver analytical tools that calculate periods of continuous provider participation for defined periods such as that evidenced by claims/encounter data, following the Department's stated specifications, enabling authorized BIDM users to incorporate the data into analyses, queries, and reports.

41.15.2.   Deliverable: Continuous Provider Participation Calculations

41.15.3.   Deliverable Stage: BIDM Implementation Contract Stage III

41.16.   Reference #3957: The Contractor shall calculate average total cost of care, as a PMPM, for all Medicaid clients, updated monthly.

41.16.1.   Contractor Approach: The Contractor shall deliver analytical tools that calculate average total cost of care, as a PMPM measure, and shall cause the data that produces the measure to be updated monthly.

41.16.2.   Deliverable: Cost of Care PMPM Calculations

41.16.3.   Deliverable Stage: BIDM Implementation Contract Stage II

41.17.   Reference #3958: The Contractor shall calculate the Adult Medicaid Quality Grant (AMQG) measures for all Medicaid primary care providers.

41.17.1.   Contractor Approach: The Contractor shall deliver analytical tools that calculate the initial core set of health care quality measures for adult Medicaid enrollees (AMQG), by primary care provider, which can be calculated using administrative data only or for which other required data are available within the BIDM data warehouse, such as vital records.

41.17.2. Deliverable: AMQG Measures Calculations

41.17.3. Deliverable Stage: BIDM Implementation Contract Stage III

41.18. Reference #3959: The Contractor shall convert and document the quarterly Benefits Management reports from the Legacy System and SDAC data to the BIDM.

41.18.1. Contractor Approach: The Contractor shall develop the quarterly Benefits Management reports similar to those in the Legacy System and SDAC using tools, such as IBM Cognos tools, and document the new reporting process. The Contractor shall design the new process to preserve the details and flexibility the Department's staff require and make desired improvements as may be identified during the BIDM DDI Contract Phases.

41.18.2. Requirement Stage: BIDM Implementation Contract Stage III

41.19. Reference #3960: The Contractor shall maintain and generate the quarterly Benefits Management reports for authorized BIDM users.

41.19.1. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.19.2. Contractor Approach: The Contractor shall maintain and generate the quarterly Benefits Management reports for use by authorized BIDM users. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.19.3. Deliverable: Quarterly Benefits Management Reports

41.19.4. Deliverable Stage: BIDM Implementation Contract Stage III

41.20. Reference #3961: The Contractor shall develop, document, maintain, and provide analytics and prompt-based reports evaluating the adequacy of the provider network by Health Benefit Plan and in total based on provider/client ratios by select criteria, such as geographic region, provider type and client demographics, in conjunction with the Department.

41.20.1. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.20.2. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.20.3. Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications analytical reports and prompt-based reports evaluating the adequacy of the provider network by Health Benefit Plan and in total based on provider/client ratios by select criteria, such as geographic region, provider type and client demographics. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.20.4. Deliverable: Provider Network Adequacy Reports

41.20.5. Deliverable Stage: BIDM Implementation Contract Stage III

41.21. Reference #3962: The Contractor shall develop, document, maintain, and provide analytics and prompt-based reports evaluating provider participation by Health Benefit Plan and in total by select criteria, such as payments, services, types of services, client demographics, geographic region, in conjunction with the Department.

41.21.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.21.2.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.21.3.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications analytical reports and prompt-based reports evaluating provider participation by Health Benefit Plan and in total by select criteria, such as payments, services, types of services, client demographics, and geographic region. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.21.4.   Deliverable: Provider Participation by Health Benefit Plan Reports

41.21.5.   Deliverable Stage: BIDM Implementation Contract Stage III

41.22.   Reference #3963: The Contractor shall develop, document, maintain, and provide prompt-based reports that compare Health Benefit Plans across select criteria, such as cost of care, timeliness of care, quality of care, grievance and appeals, and outcomes, per Department specifications.

41.22.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.22.2.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.22.3.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications analytical reports and prompt-based reports that compare Health Benefit Plans across select criteria, such as cost of care, timeliness of care, quality of care, grievance and appeals, and outcomes, assuming the supporting data are available in the BIDM such as claim, client record, and grievance/appeal data. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.22.4.   Deliverable: Health Benefit Plan Comparison Reports

41.22.5.   Deliverable Stage: BIDM Implementation Contract Stage III

41.23.   Reference #3964: The Contractor shall provide the ability for authorized BIDM users to analyze and report on utilization and cost of services against Health Benefit Plan specified service limitations.

41.23.1.   Contractor Approach: The Contractor shall deliver analytical tools that enable authorized BIDM users to report on utilization and cost of services against Health Benefit Plan specified service limitations.

41.23.1.1.   The Contractor's approach shall allow users to:

41.23.1.1.1.   Specify filters of interest, such as category of service, procedure code, date range, age group, aid category, and run distribution reports displaying the volume of services or payments across all clients.

41.23.1.1.2.   Compare the actual distribution to policy limits to identify opportunities to improve processes such as prior authorization and system edits.

41.23.2.   Requirement Stage: BIDM Implementation Contract Stage III

41.24. Reference #3965: The Contractor shall develop, document, maintain, and provide a prompt-based hospice report showing a comparison of hospice days versus inpatient days for each hospice client and for all hospice providers per Department specifications.

41.24.1. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.24.2. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.24.3. Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications analytics and prompt-based hospice reports showing a comparison of hospice days versus inpatient days for each hospice client and for all hospice providers. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.24.4. Deliverable: Hospice Reports

41.24.5. Deliverable Stage: BIDM Implementation Contract Stage III

41.25. Reference #3966: The Contractor shall develop, document, maintain, and provide analytics and prompt-based reports that detect underutilization or overutilization of services by clients in a health plan. The Contractor and the Department will work in conjunction to identify benchmarks, such as national benchmarks, health plans and Medicaid totals, by which determinations will be made.

41.25.1. The Contractor shall apply definitions provided by the Department for underutilization and overutilization as appropriate.

41.25.2. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.25.3. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.25.4. Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications analytical reports and prompt-based reports that detect under-utilization or overutilization of services by clients in a health plan. The Contractor shall identify benchmarks, such as national benchmarks, health plans and Medicaid totals, by which determinations will be made, based on information from and as approved by the Department. The Contractor's approach shall be based on the built-in clinical measures and benchmark comparisons of tools in the BIDM, such as the Contractor's Advantage Suite tool. The Contractor's approach to the calculation of underutilization and overutilization shall be based the definitions contained in BIDM, which the Contractor shall map to the definitions if provided by the Department. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.25.5. Deliverable: Client Underutilization and Overutilization Reports

41.25.6. Deliverable Stage: BIDM Implementation Contract Stage III

41.26. Reference #3967: The Contractor shall develop, document, maintain, and provide to authorized BIDM users BIDM generated prompt-based reports that identify claims with dates of service after

the client's date of death as identified by any BIDM data, including claim, client record and vital statistics data.

41.26.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.26.2.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications analytical reports and prompt-based reports that identify claims with dates of service after the client's date of death as identified by any data in the BIDM warehouse, including claim, client record and vital statistics data.

41.26.3.   Deliverable: Claim Date Versus Date of Death Reports

41.26.4.   Deliverable Stage: BIDM Implementation Contract Stage III

41.27.   Reference #3968: The Contractor shall develop, document, maintain, and provide prompt-based reports to generate third party payment profiles to determine where program cost reductions might be achieved per Department specifications.

41.27.1.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.27.2.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.27.3.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications analytical reports and prompt-based reports that generate third party payment profiles to determine where program cost reductions might be achieved. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.27.4.   Deliverable: Third Party Payment Reports

41.27.5.   Deliverable Stage: BIDM Implementation Contract Stage III

41.28.   Reference #3969: The Contractor shall develop, document, maintain, and provide a prompt-based report of acute care services by county per Department specifications.

41.28.1.   At a minimum the report shall contain unduplicated client counts, unduplicated provider counts, expenditures, and average costs of the following: medical services, average monthly client count, and average cost per full-time equivalent (FTE) client.

41.28.2.   The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.28.3.   The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.28.4.   Contractor Approach: The Contractor shall develop, document, maintain, and provide per Department specifications an analytical report and prompt-based report of acute care services by county. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.28.5.   Deliverable: Acute Care Services Reports

41.28.6. Deliverable Stage: BIDM Implementation Contract Stage III

41.29. Reference #3970: On a monthly basis, the Contractor shall calculate and associate with each client their current Risk Score and maintain history of prior Risk Scores.

41.29.1. The Contractor shall provide dates associated with each of the Risk Scores.

41.29.2. Contractor Approach: The Contractor shall calculate and associate with each client their current Risk Score and maintain history of prior Risk Scores. The Contractor's approach shall utilize DCG concurrent relative risk scores using the DCG All-Encounter Model for Medicaid, calculated for each client, which Contractor shall calculate monthly if desired by the Department. The Contractor shall save historical risk scores by date. The Contractor shall also make prospective relative risk scores available upon request by the Department.

41.29.3. Deliverable: Current Client Risk Score Calculation

41.29.4. Deliverable Stage: BIDM Implementation Contract Stage III

41.30. Reference #3971: On a monthly basis, the Contractor shall calculate Risk Scores and associate Risk Scores with each client, going back at least ten (10) years if data is available.

41.30.1. Contractor Approach: The Contractor shall utilize the DCG All-Encounter Model methodology to calculate Risk Scores and associate Risk Scores with each client, going back at least ten (10) years if data is available, which the Contractor shall calculate monthly if desired by the Department. The Contractor shall save historical risk scores by date.

41.30.2. Deliverable: 10-Year Client Risk Score Calculation

41.30.3. Deliverable Stage: BIDM Implementation Contract Stage III

41.31. Reference #3972: The Contractor shall develop, document, maintain, and provide prompt-based reports per Department specifications to monitor trends in payments, utilization, and unduplicated client counts for select topics, such as increases/decreases, cumulative year-to-date figures and comparisons with prior years.

41.31.1. The Contractor shall also provide prompt-based versions of the reports that authorized BIDM users may run at any time for any specified timeframe. Prompts shall be defined when the reports are developed.

41.31.2. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.31.3. Contractor Approach: The Contractor shall develop, document, maintain, and provide analytical reports and prompt-based reports, per Department specifications, to monitor trends in payments, utilization, and unduplicated client counts for select topics, such as increases/decreases, cumulative year-to-date figures and comparisons with prior years. The Contractor shall produce and distribute the reports as agreed upon and outlined in the Communication Management Plan.

41.31.4. Deliverable: Payment, Utilization and Client Count Trend Reports

41.31.5. Deliverable Stage: BIDM Implementation Contract Stage III

41.32. Reference Amendment 2-2016: Legacy COGNOS Reporting

41.32.1. The Contractor shall migrate and maintain the Cognos framework and content store packages from the Legacy System in BIDM to support operational reporting from DSS Legacy data. The Contractor shall plan, test, and manage the migration process, including the logical and physical data architecture, and use of the data loading tools. The Contractor shall configure the Legacy

Cognos reporting to the same or similar user roles, security, and performance expectations as the Stage 1 Sandbox environment. The Contractor shall conduct testing with help from Department staff to ensure that the BIDM is producing expected results.

41.32.1.1.   Deliverable: Legacy Cognos Reports

41.32.1.2.   Deliverable Stage: BIDM Implementation Contract Stage II

42. SECURE DATA DISSEMINATION

42.1.   Reference #3973: The Contractor shall develop, document, maintain, and provide on a scheduled basis data extracts to Department identified entities per Department specifications and current HIPAA standards.

42.1.1.   Contractor Approach: The Contractor shall develop, document, maintain, and provide on a scheduled basis data extracts to Department identified entities per Department specifications and current HIPAA standards. The Contractor shall identify the data elements needed for each extract, based on information from and as approved by the Department. The Contractor shall obtain a release from the Department authorizing the Contractor to transmit data to a third party.

42.1.1.1.   All data to be transmitted shall be encrypted using at least 128-bit encryption like SSL, SFTP, and FTP with PGP encryption.

42.1.2.   Deliverable: Data Extracts

42.1.3.   Deliverable Stage: BIDM Implementation Contract Stage II

42.2.   Reference #3974: The Contractor shall perform secure data dissemination.

42.2.1.   This secure data dissemination shall occur in all of the following areas:

42.2.1.1.   Federal and State laws, rules and regulations, including HIPAA, that require that Department data be strictly protected.

42.2.1.2.   The BIDM Web Portal, Providers and other authorized BIDM users who will be accessing specific BIDM information via the BIDM Web Portal.

42.2.1.3.   Information developed via the BIDM, such as reports, maps and forecasts, shall be transmitted to end users for program operations.

42.2.1.4.   Transfers of large data files/raw data sets to and from other stakeholders, such as contractors and auditors.

42.2.1.5.   Blinding reports according to Department Safe Harbor protocols. Department reports are frequently used in public forums and requested by external parties.

42.2.1.6.   Limited data sets for researchers and other external parties upon request.

42.2.2.   Contractor Approach: The Contractor shall perform secure data dissemination only with documented authorization and permission from the Department. The Contractor shall select the appropriate secure transmission method depending on the type of data set for dissemination. In the event that automated blinding is unavailable, the Contractor shall manually blind deliverables for external release in accordance with the Department's safe harbor protocols.

42.2.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

42.3.   Reference #3975: The Contractor shall generate and securely transmit and transfer output datasets to third parties through secure protocols.

43.3.1.   Contractor Approach: The Contractor shall generate and securely transmit and transfer output datasets to third parties through secure protocols applicable to the type of dataset being transmitted.

43.3.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43. REPORTING SUPPORT

43.1.   Reference #3976: The Contractor shall research and answer questions from the Department, authorized BIDM users, and end users related to pre-defined reports.

43.1.1.   THIS REQUIREMENT INTENTIONALLY DELETED.

43.1.2.   Contractor Approach: The Contractor shall provide the services of the required Non-Key Personnel described in Exhibit A, Section 4.2 to research and answer questions from the Department, authorized BIDM users, and end users related to pre-defined reports. Once defined and approved by the Department, the protocol for requesting and providing assistance shall be documented in the System Operations and Maintenance Plan.

43.1.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43.2.   Reference #3977: The Contractor shall provide protocols for when and how all authorized BIDM users will be provided technical support.

43.2.1.   This shall include how Department staff and authorized BIDM users will be provided analytical and technical support.

43.2.2.   Contractor Approach: The Contractor shall recommend protocols for how it will provide analytic and technical support to system users. Once approved by the Department, they shall be implemented and documented in the System Operations and Maintenance Plan.

43.2.3.   Deliverable: Technical Support Protocols

43.2.4.   Deliverable Stage: BIDM Implementation Contract Stage III

43.3.   Reference #3978: The Contractor shall develop, document, and implement operations and reports so they meet identified business needs, such as attribution and enrollment and roster reporting.

43.3.1.   Contractor Approach: The Contractor shall build, document, produce, and disseminate operations and reports on an ongoing basis. These reports shall include enrollment rosters, enrollment summary reports, and attribution reports.

43.3.2.   Requirement Stage: BIDM Implementation Contract Stage II

43.4.   Reference #3979: The Contractor shall develop and maintain a process to provide assistance, both technical and business process related, as needed to authorized BIDM users in researching problems, effectively utilizing tools, and understanding reports and underlying data.

43.4.1.   Contractor Approach: The Contractor shall develop, gain approval for, and execute processes to provide assistance for researching problems, effectively utilizing tools, and understanding reports and underlying data. Once approved by the Department, these processes shall be documented in the Technical Support Protocols.

43.4.2.   Requirement Stage: BIDM Implementation Contract Stage III

43.5.   Reference #3980: The Contractor shall work with Department staff, authorized BIDM users, and end users to research and resolve discrepancies and anomalies.

43.5.1.   If the investigation reveals flaws in the operations and/or report, the Contractor shall correct the flaws.

43.5.2.   Contractor Approach: The Contractor shall follow the agreed-upon protocol, documented in the System Operations and Maintenance Plan, for receiving, logging, responding to, and resolving such requests from users.

43.5.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43.6.   Reference #3981:   The Contractor shall work collaboratively with the Department to explain, support and defend BIDM Contractor-based operations and reporting to stakeholders, auditors, and other parties when necessary.

43.6.1.   Contractor Approach: The Contractor shall work collaboratively with the Department to explain, support, and defend BIDM operations, calculations, and reporting to stakeholders, auditors, and other parties when necessary.

43.6.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43.7.   Reference #3982: The Contractor shall build, fully document, run and disseminate all reports per the report requirements.

43.7.1.   Contractor Approach: The Contractor shall build, document, produce, and disseminate reports per the report requirements.

43.7.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43.8.   Reference #3983: At least annually, or more often if components of a report change, the contractor shall periodically review pre-defined reports, for recommend modifications to the reports, for work with the Department and other stakeholders to update report requirements and modify the reports and documentation per the revised requirements.

43.8.1.   Contractor Approach: Periodically, and at least annually in conjunction with the development of the ABP, the Contractor shall review pre-defined reports and recommend any changes needed to stay current with industry changes, federal or state regulations, policy or source system changes. The Contractor shall collaborate with the Department and other stakeholders to update report requirements. The Contractor shall modify the reports and update the documentation following the approved Change Management Process.

43.8.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43.9.   Reference #3984: The Contractor shall assess and report on the validity of pre-defined reports at the Department's request.

43.9.1.   Contractor Approach: The Contractor shall assess and report on the validity of pre-defined reports at the Department's request. Should report changes be required, the Contractor shall modify the reports and update the documentation following the approved Change Management Process.

43.9.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43.10.   Reference #3985: The Contractor shall assist authorized BIDM users in troubleshooting and resolving problems related to existing reports developed by authorized BIDM users.

43.10.1.   Contractor Approach: The Contractor shall assist authorized BIDM users in troubleshooting and resolving problems related to existing reports developed by users. The Contractor shall help users with report design analysis, query troubleshooting, and issue resolution.

43.10.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43.11. Reference #3986: The Contractor shall assist authorized BIDM users when they are developing queries and/or reports that are beyond standard utilization norms for their user levels, such as developing advanced analytics, building exceptionally complex reports or incorporating data from multiple sources.

43.11.1. Contractor Approach: The Contractor shall provide the services of the required Non-Key Personnel described in Exhibit A, Section 4.2 to assist authorized BIDM users when they are developing queries or reports that incorporate advanced concepts, exceptionally complex, incorporate data from multiple sources or otherwise needing advanced reporting support.

43.11.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43.12. Reference #3987: The Contractor shall work collaboratively with the Department to explain, support, and defend reports and all calculation methodology to stakeholders, auditors, and other parties when necessary.

43.12.1. Contractor Approach: The Contractor shall work collaboratively with the Department to explain, support, and defend BIDM operations, calculations, and reporting to stakeholders, auditors, and other parties when necessary.

43.12.2. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

43.13. Reference #3988: The Contractor shall provide and maintain additional functionality other than telephone, for authorized BIDM users to contact the Contractor for technical BIDM system support, and other questions.

43.13.1. This may include, but is not limited to, instant messaging like the Microsoft Lync feature or email.

43.13.2. Contractor Approach: The Contractor shall provide a multi-channel contact center staffed with full-time customer support specialists. The contact center shall manage and direct service requests to the appropriate Contractor specialists, as needed, whether the requests are received via phone, email, or through the web-based customer portal. Support discussions conducted directly between the Contractor's Denver-based staff and the Department shall be able to be conducted using email, in addition to the phone.

43.13.3. Requirement Stage: BIDM Implementation Contract Stage III

44. BIDM WEB PORTAL TRAINING AND HELP-DESK

44.1. Reference #3989: The Contractor shall provide help desk functionality for users of the BIDM Web Portal and shall provide toll-free telephone lines to receive calls from any BIDM Web Portal users experiencing any trouble navigating or operating the application itself, accessing the BIDM Web Portal or with any other question related to the BIDM Web Portal.

44.1.1. This requirement shall include, but is not limited to, all of the following activities:

44.1.1.1. Account creation for new users.

44.1.1.2. Resetting existing accounts, including password resets.

44.1.1.3. Answering questions on the functionality of the BIDM Web Portal and other "how-to" type questions.

44.1.1.4. Troubleshooting issues that users may encounter while using or working in the BIDM Web Portal.

44.1.1.5. Providing information regarding the source content or the methodologies of the Contractor's analytics.

44.1.1.6. Resolve all help desk inquiries regarding the BIDM Web Portal and transfer or direct all inquiries regarding questions or issues beyond the Contractor's Statement of Work to the appropriate person or entity.

44.1.2. Contractor Approach: The Contractor shall provide help desk functionality for authorized users of the BIDM Web Portal, using the following approach:

44.1.2.1. Tier 1 Provider Support – Initial contact shall be supported by Contractor's professionally staffed Product Support Call Center (Help Desk), which uses an auditable, customer relationship management (CRM) system designed to optimize workflow and manage the Service Level Agreement requirements of the Contract. Providers shall be able to contact the Tier 1 Help Desk directly via toll-free phone call, e-mail, or through a "chat" form accessed from the web portal. Tier 1 support shall include basic questions about access, accounts, and passwords. This team will also provide PPA product use explanations and be able to walk providers through screens and functions.

44.1.2.2. Tier 2 Provider Support – Should a provider need help beyond that provided by the Help Desk, the call shall be redirected as a "warm transfer" to Contractor's BIDM project account team. The account team shall take ownership of the call and work directly with the provider to resolve his/her problem or answer more in-depth questions.

44.1.2.3. Tier 3 Provider Support – The highest level of support shall be provided by Contractor's senior Denver-based BIDM project analysts. For provider questions that involve research or discussions related to provider performance measures, classifications, and methodologies, a Tier 2 support call shall initiate a call-back from a senior analyst on Contractor's staff. Contractor shall develop instructions for such provider contacts so that the Department's policy and intent is reflected, based on information from and as approved by the Department. Contractor shall also coordinate so that the Department's provider relations staff can participate in complex provider conversations, as may be directed by the Department.

44.1.2.4. In responding to providers' web portal inquiries, Contractor shall follow protocols approved by the Department and documented in the System Operations and Maintenance Plan. Contractor's Help Desk staff shall work in close collaboration with Contractor's Analytic Team, who shall be responsible for producing the web portal reports and with other subject matter or product experts as needed to research and resolve provider questions about the validity of their reports.

44.1.3. Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

44.2. Reference #3990: The Contractor shall provide help desk functionality for users of the BIDM Web Portal and shall provide toll-free telephone lines to receive calls from any BIDM Web Portal users experiencing any trouble navigating or operating the application itself, accessing the BIDM Web Portal or with any other question related to the BIDM Web Portal up to four thousand (4,000) providers.

44.2.1. The Department may add support for up to four-thousand (4,000) additional providers, in five-hundred (500) provider increments, through the use of an Option Letter at the rates described in this Contract.

44.2.2. Contractor Approach: The Contractor shall provide a toll-free telephone line to receive calls from any BIDM Web Portal users having questions and shall support up to 1,000 providers using

the system. Contractor shall be prepared to support an increase in provider users in five-hundred (500) provider increments to a maximum of four thousand (4,000) provider users, to be authorized by an Option Letter the Department will initiate. Contractor shall have the right to adjust performance standards relative to the additional usage.

44.2.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

44.3.   Reference #3991: The Contractor shall provide live BIDM Web Portal online trainings no less frequently than monthly.

44.3.1.   BIDM Web Portal trainings shall cater to providers and emphasize the application of BIDM reporting for clinical practice and population management.

44.3.2.   Contractor Approach: The Contractor shall conduct monthly webinars as agreed to in the Training Plan.

44.3.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

44.4.   Reference #3992: The Contractor shall provide an on-demand webinar training for the BIDM Web Portal, accessible on-line outside of the BIDM Web Portal.

44.4.1.   This training shall focus on BIDM Web Portal functionality. Any trainings utilizing PHI shall only be conducted within the BIDM Web Portal.

44.4.2.   Contractor Approach: The Contractor shall provide webinar training as agreed to in the Training Plan. The Contractor shall not display or distribute PHI data during these sessions.

44.4.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

44.5.   Reference #3993: The Contractor shall schedule and conduct quarterly BIDM Web Portal focus group sessions with select groups of providers to assess the usability and functionality of the BIDM Web Portal for providers. The Contractor shall report these results to the Department.

44.5.1.   Contractor Approach: The Contractor shall schedule and conduct quarterly BIDM Web Portal focus-group sessions with select groups of providers, such as RCCOs, to assess the usability and functionality of the BIDM web portal for providers. Contractor shall report these findings to the Department and work collaboratively to make the BIDM Web Portal component effective and efficient.

44.5.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

44.6.   Reference #3994: The Contractor shall provide live Help Desk technical support for the BIDM Web Portal as agreed to in the Ongoing Support Maintenance Plan.

44.6.1.   Help Desk staffing resources shall provide assistance with all of the following:

44.6.1.1.   Authorized BIDM user account creation.

44.6.1.2.   Authorized BIDM user account resets.

44.6.1.3.   Questions on functionality.

44.6.1.4.   Troubleshooting reporting.

44.6.1.5.   Basic information regarding Contractor reporting methodologies.

44.6.2.   Contractor Approach: The Contractor shall provide live Help Desk technical support for the BIDM Web Portal, to perform all of the above-specified services and as agreed to in the Ongoing Support Maintenance Plan.

44.6.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

44.7.   Reference #3995: The Contractor shall provide BIDM Web Portal Help Desk to BIDM Web Portal users.

44.7.1.   The Contractor shall provide the BIDM Web Portal Help Desk via all of the following:

44.7.1.1.   Toll-free telephone number.

44.7.1.2.   E-mail.

44.7.1.3.   On-line chat functionality.

44.7.2.   Contractor Approach: The Contractor shall provide BIDM Web Portal help via toll-free phone call, e-mail, or through a "chat" form accessed from the web portal.

44.7.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

44.8.   Reference #3996: The Contractor shall provide BIDM Web Portal Help Desk technical support 8:00 am - 6:00 pm MT, each Business Day.

44.8.1.   Contractor Approach: The Contractor shall provide BIDM Web Portal Help Desk support between 8:00 a.m. and 6:00 p.m. MT, each Business Day.

44.8.2.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

44.9.   Reference #3997: The Contractor shall maintain an automated logging and tracking system for all user inquiries between BIDM Web Portal users and the BIDM Web Portal help desk and report on these inquiries weekly.

44.9.1.   At a minimum, the tracking system shall record and report on all of the following:

44.9.1.1.   The date of inquiry.

44.9.1.2.   The user.

44.9.1.3.   The BIDM Help Desk staff member.

44.9.1.4.   The form of inquiry, such as phone, email or instant messaging.

44.9.1.5.   The nature of the inquiry.

44.9.1.6.   Response details.

44.9.1.7.   Date of response.

44.9.1.8.   Any applicable notes on the resolution of the inquiry.

44.9.2.   Contractor Approach: The Contractor's Product Support Call Center shall use an auditable CRM system to log and track user inquiries that arrive at Contractor's Product Support Call Center. The Contractor shall use the CRM to produce usage and management reports to the Department once per week that include the specified information.

44.9.3.   Requirement Stage: BIDM Ongoing Operations and Enhancement Contract Stage

44.10.   Reference #3998: The Contractor shall provide BIDM Web Portal Help Desk technical support management reports to the Department once per week which include the number of users assisted, their issues, and the resolution.

44.10.1.   Contractor Approach: The Contractor Product Support Call Center shall use an auditable CRM system to log and track user inquiries that arrive at Contractor's Product Support Call Center.

The Contractor shall use the CRM to produce usage and management reports to the Department once per week that include the specified information.

44.10.2.   Deliverable: BIDM Web Portal Help Desk Technical Support Management Reports

44.10.3.   Deliverable Stage: BIDM Ongoing Operations and Enhancement Contract Stage

45. INVOICING

45.1.   Reference #3999: The Contractor shall invoice the Department on a monthly basis, by the fifteenth (15th) Business Day of the month following the month for which the invoice covers. The Contractor shall not submit any invoice for a month prior to the last day of the month the invoice covers.

45.1.1.   This information shall include all necessary information for the Department to determine the accuracy of the invoice and properly pay the invoice to the Contractor.

45.1.2.   The Contractor shall breakout the invoice as directed by the Department to facilitate proper payment of the invoice and the Department's receipt of proper Federal Financial Participation for any component of the payment.

45.1.3.   Contractor Approach: Contractor shall follow the prescribed invoicing process as specified in this section and in Contract Section 7 and Exhibit E.

45.1.4.   Requirement Stage: All Contract Stage

46. MEDICARE-MEDICAID PROGRAM – QUALITY MEASURES PROJECT

46.1.   Reference Amendment 1-2016: Contractor shall develop a new integrated Medicare-Medicaid data set that can be used for the Accountable Care Collaborative: Medicare-Medicaid Program (ACC: MMP) shared savings quality metrics as well as future policy planning and analysis and shall produce the quality metrics for each of the three years of the ACC: MMP. Any changes to the approach detailed below will be handled via the BIDM Change Management Process.

46.1.1.   **PROJECT OVERVIEW:** Contractor shall utilize secured infrastructure and resources to load and integrate Medicaid and Medicare claims, enrollment and provider files, as mutually agreed upon with the Department, and produce a set of quality metrics. Contractor shall phase in ten (10) quality metrics over the course of the MMP Project. Contractor shall produce all ten (10) of the quality metrics based on administrative data only. The data set and applicable quality metrics will be updated annually for each of the three years of the MMP Project. Reporting periods and Data Submission Spreadsheet Template reporting deadlines are defined in the table in Exhibit C, Section 46.1.1.1:

46.1.1.1.   Table: Reporting Periods and Data Submission Spreadsheet deadlines

Demonstration Year	Reporting Periods	Data Submission Spreadsheet Template reporting deadlines
Demonstration Year 1 (16 months)	September 1, 2014 – December 31, 2014 *	*Data collected during this time period would be for informational purposes only.*
	January 1, 2015 – December 31, 2015	Deliverable: 46.1.3.23.1 December 29, 2016
Demonstration Year 2 (12 months)	January 1, 2016 – December 31, 2016	Deliverable: 46.1.4.21.1 October 31, 2017
Demonstration Year 3 (12 months)	January 1, 2017 – December 31, 2017	Deliverable: 46.1.5.17.1 October 31, 2018

46.1.2. **CONTRACTOR APPROACH:** The MMP Project will be divided into three (3) major phases of work with assumption of initial receipt of useable historic Medicaid Medicare data on February 29, 2016:

46.1.2.1. Demonstration Year 1 shall include initial database design, development, and implementation as well as specification, testing, and production of six (6) measures as indicated in the table in Exhibit C, Section 46.1.2.3.1.

46.1.2.2. Demonstration Year 2 shall include modifying the database for changes in source systems, updating with the most recent year of data, updating the six (6) measures from the prior year and developing, testing, and producing two (2) new measures, as indicated in the table in Exhibit C, Section 46.1.2.3.1.

46.1.2.3. Demonstration Year 3 shall include updating with the most recent year of data, updating the 8 measures from the prior year and developing, testing, and producing two (2) new measures as indicated in the table in Exhibit C, Section 46.1.2.3.1.

46.1.2.3.1. Table: Measure Production by Demonstration Year

Measure	Demonstration Year 1	Demonstration Year 2	Demonstration Year 3
All Cause Hospital Readmission *(Plan All Cause Readmission NQF #1768)* **Claim-based Measure**	X	X	X
Ambulatory Care-Sensitive Condition Hospital Admission *(PQI Composite #90)* **Claim-based Measure**	X	X	X
ED Visits for Ambulatory Care-Sensitive Conditions *(Rosenthal)* **Claim-based Measure**	X	X	X
Follow-Up after Hospitalization for Mental Illness *(NQF #0576)* **Claim-based Measure**	X	X	X
Depression screening and follow-up care *(#0418)* **Partially Claim-based Measure**		X	X
Care transition record transmitted to health care professional		X	X

(NQF #648) **Partially Claim-based Measure**			
Screening for fall risk *(NQF #0101)* **Partially Claim-based Measure**			X
Initiation and engagement of alcohol and other drug dependent treatment: (a) initiation, (b) engagement *(NQF #0004)* **Partially Claim-based Measure**			X
Hospital Discharge and Follow Up: Percentage of enrollees who received first follow-up visit within 30 days of hospital discharge	X	X	X
Care for Older Adults: Percentage of enrollees 66 years and older who had each of the following during the measurement year: advance care planning, medication review, functional status assessment, and pain screening (HEDIS)	X	X	X

46.1.3.   MMP PROJECT ACTIVITIES AND DELIVERABLES – DEMONSTRATION YEAR 1

46.1.3.1.   Contractor shall participate in CMS Medicare/Medicaid Data Integration On-site Visit to confirm the source data for the MMP Project, review layouts and data dictionaries, identify needed Data Use Agreements, and discuss key business rules for integrating and analyzing the data.

46.1.3.2.   Contractor shall complete a MMP Data Management Plan that documents the final list of data sources, data formats, and schedule for data receipt, as well as describing at a high level the business rules and processes for loading, transforming, organizing, and integrating the data.

46.1.3.3.   The MMP Data Management Plan shall include:

46.1.3.3.1.   Identification of all data sources, BIDM Data Interfaces, BIDM Data Exchanges, and external data systems (e.g. RESDAC) used in data integration for each year of the MMP Project

46.1.3.3.2.   BIDM System architecture relevant to the MMP Project

46.1.3.3.3. Mechanism and frequency of data updates

46.1.3.3.4. How the Contractor will comply with all agreements between the Department and CMS regarding use and treatment of Medicare data

46.1.3.3.5.   Deliverable: MMP Data Management Plan

46.1.3.3.6.   Due Date: As enumerated in the MMP Project Work Plan

46.1.3.4.   Contractor shall compile a MMP Project Work Plan that includes high level activities, project deliverables, and due dates for all phases of the MMP Project.

46.1.3.4.1.   Contractor shall update the MMP Project Work Plan at least monthly, and share with the Department within five (5) Business Days of request.

46.1.3.4.2.   Deliverable: MMP Project Work Plan

46.1.3.4.3.   Due Date: Within 10 Business Days of execution of this contract amendment.

46.1.3.5.   Contractor shall meet with the Department to provide regular updates, according to a schedule determined with the Department.

46.1.3.6.   Contractor shall establish the Hardware/Software Environment for the MMP Project by configuring a secure partition on an existing HIPAA compliant server in Contractor's data center. Contractor shall set up processes for secure data transfer.

46.1.3.7.   Contractor shall design, develop and test processes for intake of data files.

46.1.3.8.   Contractor shall receive and process history data for development purposes.

46.1.3.9.   At the Department's request, the Contractor will obtain and store data from two BIDM Imports to support the MMP Project. This level of effort shall be considered in the MMP Project Work Plan. Data from these imports will not be integrated with other data but will be stored in the BIDM Operational Data Store (ODS). Analysis of this data will be limited to calculating the MMP quality metrics as outlined in this amendment only.

46.1.3.9.1.   Import of historical Medicaid-Medicare integrated data from the SDAC Contractor updated annually.

46.1.3.9.2.   Import of BHO flat-file encounter data external to MMIS in a single integrated format across BHOs updated annually until the BHO data are available in the MMIS feed from InterChange.

46.1.3.10.   Contractor shall load and assess quality of data for each data source and produce a MMP Data Quality Report that summarizes the strengths and limitations of each data set and any implications for data integration and analysis.

46.1.3.10.1.   Deliverable: MMP Data Quality Report

46.1.3.10.2.   Due Date: As enumerated in the MMP Project Work Plan

46.1.3.11.   Contractor shall set up processes for ongoing data receipt per agreed upon schedule. Contractor shall load and process data ongoing.

46.1.3.12.   Contractor shall document and obtain Department sign-off on MMP Final Measure Specifications and Data Submission Spreadsheet Template for Demonstration Year 1.

46.1.3.13.   Contractor shall collaborate with the Department and the MMDI Project Team to design analytic data sets needed to create the quality measures. Contractor shall produce an MMP Design Document that includes detailed logic to:

46.1.3.13.1.   Uniquely identify members across programs;

46.1.3.13.2.   Uniquely identify providers across programs;

46.1.3.13.3.   Handle financial adjustments in all data and identify final action claims; and

46.1.3.13.4.   Link or merge information on cross-over claims.

46.1.3.14.   Contractor shall provide direct access to the data sets (for example, SAS data files) for designated Department staff through a method determined in conjunction with the Department.

46.1.3.15.   Upon Department request, the Contractor will provide access to the data sets via the BIDM Sandbox environment.

46.1.3.15.1.   Deliverable: Direct access to data sets for designated Department staff

46.1.3.15.2.   Due Date: As enumerated in the MMP Project Work Plan

46.1.3.16.   Contractor shall develop analytic data sets according to the MMP Design Document.

46.1.3.17.   Contractor shall develop an MMP Quality Assurance Plan for testing the quality of the integrated analytic data sets.

46.1.3.18.   Contractor shall program and execute quality tests utilizing appropriate sources from existing vendors, and document and share results in an MMP Quality Assurance Test Results Document.

46.1.3.18.1.   Deliverable: Demonstration Year 1 MMP Quality Assurance Test Results Document

46.1.3.18.2.   Due Date: As enumerated in the MMP Project Work Plan

46.1.3.19.   Contractor shall program Demonstration Year 1 quality measures on development data according to specifications and produce a set of initial results for review and validation.

46.1.3.20.   Contractor shall perform validation analysis to ensure the integrity of the measure calculation processes and share findings with the Department. Contractor shall investigate any aberrant or questionable findings, and refine methods as needed.

46.1.3.21.   Contractor shall update data sets with most recent data available for Demonstration Year 1, i.e., claims paid through March 31, 2016.

46.1.3.22.   Contractor shall produce and test Demonstration Year 1 administrative data measures based on updated data. Contractor shall submit for Department review and approval and make revisions as necessary.

46.1.3.22.1.   Deliverable: Demonstration Year 1 administrative measures

46.1.3.22.2.   Due Date: As enumerated in the MMP Project Work Plan

46.1.3.23.   Contractor shall produce and submit final Demonstration Year 1 administrative data measures to the Department in the agreed upon Demonstration Year 1 Data Submission Spreadsheet Template. The Demonstration Year 1 template shall include two (2) separate periods of measurement as indicated in the Table in Exhibit C, Section 46.1.1.1.

46.1.3.23.1.   Deliverable: Demonstration Year 1 Administrative Data Measures

46.1.3.23.2.   Due Date: December 29, 2016

46.1.3.24.   Contractor shall conduct MMP Lessons Learned session to summarize key learnings as well as make recommendations for Demonstration Year 2 reporting cycle.

46.1.3.25.   Contractor shall design, develop and implement a concise set of ad hoc reports based on the integrated Medicare-Medicaid data to aid the Department in monitoring the ongoing progress of the program in achieving better outcomes and lowering the cost of care provided.

46.1.3.25.1.   The reports will display basic eligibility and enrollment, utilization, and cost figures by month, based on the data available in the analytic files created for the quality metrics.

46.1.3.25.1.1.   Utilization analyses shall include, but not be limited to, the following: total allowed amount Per Member Per Month, by claim type, billing provider type, and place of service.

46.1.3.25.2.   In addition to overall utilization and expenditure measures, Contractor shall generate subgroup analyses by gender, age group, race/ethnicity, basis of eligibility and RCCO.

46.1.3.25.3.   Contractor shall present the utilization metrics and subgroup analyses in visual and table formats that together will comprise an infographic for the reporting period.

46.1.3.25.4.   The reports will be produced once in Year 1 and delivered within two months of completion of the Quality Assurance Test Results document, assuming receipt of data on schedule per the project plan.

46.1.3.25.5.   Deliverable: Demonstration Year 1 Ad Hoc MMP Monitoring Report

46.1.3.25.6.   Due Date: October 31, 2016

46.1.4.   MMP PROJECT ACTIVITIES AND DELIVERABLES – DEMONSTRATION YEAR 2

46.1.4.1.   Contractor shall update the Project Work Plan for Demonstration Year 2 and continue to update at least monthly, and share with the Department within five (5) Business Days of request.

46.1.4.1.1.   Deliverable: Demonstration Year 2 Project Work Plan

46.1.4.1.2.   Due Date: January 17, 2017

46.1.4.2.   Contractor shall facilitate a kick-off meeting and data intake for Demonstration Year 2 reporting.

46.1.4.3.   Contractor shall update the MMP Data Management Plan to document planned changes for Demonstration Year 2 in data sources, data formats, schedules for data receipt, and business rules and processes for loading, transforming, organizing, and integrating the data.

46.1.4.4.   Contractor shall update processes for secure data transfer.

46.1.4.5.   Contractor shall design, develop and test processes for intake of Medicaid data from Colorado interChange.

46.1.4.6.   Contractor shall process and load a small set of test data for new data source.

46.1.4.7.   Contractor shall process and load history data from new data source for development purposes.

46.1.4.8.   Contractor shall perform an updated assessment of data quality for each data source and produce a Data Quality Report that summarizes the strengths and limitations of each data set and any implications for data integration and analysis.

46.1.4.9.   Contractor shall document and obtain State sign-off on Final Measure Specifications and Demonstration Year 2 Data Submission Spreadsheet Template.

46.1.4.10.   Contractor shall collaborate with Department to update design of analytic data sets needed to create the quality measures; produce a Design Document that updates the detailed logic to:

46.1.4.10.1.   Uniquely identify members across programs;

46.1.4.10.2.   Uniquely identify providers across programs;

46.1.4.10.3.   Handle financial adjustments in all data and identify final action claims; and

46.1.4.10.4.   Link or merge information on cross-over claims.

46.1.4.11.   Contractor shall develop analytic data sets according to updated Design Document.

46.1.4.12.   Contractor shall update the Quality Assurance Plan for testing the quality of the integrated analytic data sets.

46.1.4.13.   Contractor shall program and execute quality tests; document and share results in Quality Assurance Test Results Document.

46.1.4.13.1.   Deliverable: Demonstration Year 2 Quality Assurance Test Results Document

46.1.4.13.2.   Due Date: July 31, 2017

46.1.4.14.   Contractor shall program two (2) new Demonstration Year 2 quality measures on development data according to specifications and produce a set of initial results for review and validation.

46.1.4.15.   THIS REQUIREMENT INTENTIONALLY DELETED.

46.1.4.16.   THIS REQUIREMENT INTENTIONALLY DELETED.

46.1.4.17.   Contractor shall perform validation analysis for the new measures to ensure the integrity of the measure calculation processes and share findings with the Department. Contractor shall investigate any aberrant or questionable findings, and refine methods as needed.

46.1.4.18.   Contractor shall update data sets with most recent data available for Demonstration Year 2, i.e., claims paid through March 31, 2017.

46.1.4.19.   Contractor shall produce and test Demonstration Year 2 administrative measures based on updated data; submit for HCPF review and approval; make revisions as needed.

46.1.4.20.   THIS REQUIREMENT INTENTIONALLY DELETED.

46.1.4.21.   Contractor shall produce and submit final Demonstration Year 2 measures to HCPF in the agreed upon Data Submission Spreadsheet Template.

46.1.4.21.1.   Deliverable: Demonstration Year 2 measures

46.1.4.21.2.   Due Date: October 31, 2017

46.1.4.22.   Contractor shall conduct Lessons Learned session to summarize key learnings as well as make recommendations for Year 3 reporting cycle.

46.1.4.23. Contractor shall make minor modifications and enhancements to the ad hoc reports as agreed upon with the Department. Contractor shall update the reports annually within one month of completion of the Quality Assurance Test Results document, assuming receipt of data on schedule per the project plan.

46.1.4.23.1. Deliverable: Demonstration Year 2 Ad Hoc MMP Monitoring Report

46.1.4.23.2. Due Date: August 31, 2017

46.1.5. MMP PROJECT ACTIVITIES AND DELIVERABLES – DEMONSTRATION YEAR 3

46.1.5.1. Contractor shall update the Project Work Plan for Demonstration Year 3 and continue to update at least monthly, and share with the Department within five (5) Business Days of request.

46.1.5.1.1. Deliverable: Year 3 Project Work Plan

46.1.5.1.2. Due Date: November 15, 2017

46.1.5.2. Contractor shall facilitate a kick-off meeting and data intake for Demonstration Year 3 reporting.

46.1.5.3. Contractor shall update the MMP Data Management Plan to document agreed upon changes for Year 3 in data values or rules and processes for loading, transforming, organizing, and integrating the data.

46.1.5.4. Contractor shall perform an updated assessment of data quality for each data source and produce a MMP Data Quality Report that summarizes the strengths and limitations of each data set and any implications for data integration and analysis.

46.1.5.5. Contractor shall document and obtain State sign-off on MMP Final Measure Specifications and MMP Demonstration Year 3 Data Submission Spreadsheet Template.

46.1.5.6. Contractor shall collaborate with the Department as needed to update design of analytic data sets if needed to create the quality measures. Contractor shall update the MMP Design Document that updates the detailed data integration logic.

46.1.5.7. Contractor shall develop analytic data sets according to the updated Design Document.

46.1.5.8. Contractor shall update the MMP Quality Assurance Plan for testing the quality of the integrated analytic data sets.

46.1.5.9. Contractor shall program and execute quality tests; document and share results in a MMP Quality Assurance Test Results Document.

46.1.5.9.1. Deliverable: MMP Demonstration Year 3 Quality Assurance Test Results Document

46.1.5.9.2. Due Date: April 30, 2018

46.1.5.10. Contractor shall program two (2) new Demonstration Year 3 quality measures on development data according to specifications and produce a set of initial results for review and validation.

46.1.5.11. THIS REQUIREMENT INTENTIONALLY DELETED.

46.1.5.12. THIS REQUIREMENT INTENTIONALLY DELETED.

46.1.5.13.   Contractor shall perform validation analysis for the new measures to ensure the integrity of the measure calculation processes and share findings with the Department. Contractor shall investigate any aberrant or questionable findings, and refine methods as needed.

46.1.5.14.   Contractor shall update data sets with most recent data available for MMP Demonstration Year 3, i.e., claims paid through March 31, 2018.

46.1.5.15.   Contractor shall produce and test all MMP Demonstration Year 3 administrative data measures based on updated data; submit for the Department review and approval; make revisions as needed.

46.1.5.16.   THIS REQUIREMENT INTENTIONALLY DELETED.

46.1.5.17.   Contractor shall produce and submit final MMP Demonstration Year 3 measures to HCPF in the agreed upon Data Submission Spreadsheet Template.

46.1.5.17.1.   Deliverable: MMP Demonstration Year 3 measures

46.1.5.17.2.   Due Date: October 31, 2018

46.1.5.18.   Contractor shall conduct Lessons Learned session and summarize key learnings as well as make recommendations for future reporting.

46.1.5.19.   Contractor shall make minor modifications and enhancements to the ad hoc reports as agreed upon with the Department. Contractor shall update the reports annually within one month of completion of the Quality Assurance Test Results document, assuming receipt of data on schedule per the project plan.

46.1.5.19.1.   Deliverable: Demonstration Year 3 Ad Hoc MMP Monitoring Report

46.1.5.19.2.   Due Date: May 31, 2018

46.1.6.   **PERSONNEL AVAILABILITY**

46.1.6.1.   Contractor shall not use any BIDM staff for the MMP Project to conduct the analysis. BIDM staff may be consulted from time to time as agreed upon by the parties for the purpose of coordinating system interfaces and creating efficiencies across the MMP Project and BIDM.

46.1.6.2.   Contractor shall ensure the following specified Key Personnel are readily available to the Department for the MMP Project:

46.1.6.2.1.   MMP DDI Lead

46.1.6.2.2.   The MMP DDI Lead shall serve as the primary point of contact for the Department for the MMP Project.

46.1.6.2.3.   The MMP DDI Lead shall be responsible for coordinating activities between MMP work and BIDM.

46.1.6.3.   Contractor shall provide sufficient staff to meet all MMP requirements. At a minimum, MMP Contractor staff shall consist of the following fractional positions throughout the MMP Project, and are considered Non-Key Personnel and are not dedicated full-time to the MMP Project:

46.1.6.3.1.   Vice President (MMP)

46.1.6.3.2.   Director (MMP)

46.1.6.3.3.   Team Lead/Sr. Programmer Analyst (MMP)

46.1.7. DELIVERABLES, TIMELINE, AND COMPENSATION

46.1.7.1. Contractor shall provide the stated deliverables in accordance with the dates stated in the table in Exhibit C, Section 46.1.7.4.

46.1.7.2. Contractor will be paid the fixed price amount stated in the table in Exhibit C, Section 46.1.7.4 upon review and acceptance by the Department of each deliverable. In addition, Contractor shall invoice the Department no later than October 31, 2018, and will be reimbursed that amount up to the maximum amount stated in the table in Exhibit C, Section 46.1.7.4. If a deliverable is not listed in the table, then Contractor shall not earn a payment for the completion and the Department's acceptance of that deliverable.

46.1.7.3. The total amount of funding for the work contained in Exhibit C, Section 46 for all work to be performed pursuant to this Section is eight hundred eleven thousand one hundred sixty-two dollars ($811,162.00). This total amount of funding will be the sole compensation to the Contractor upon acceptance by the Department for the services and/or deliverables provided in Exhibit C, Section 46.

46.1.7.4. The due date and payment for each deliverable for the MMP Project is detailed in the following table:

DELIVERABLES	DATE DUE TO THE DEPARTMENT	AMOUNT OF TOTAL AWARDED FIXED PRICE THAT CONTRACTOR WILL BE PAID FOR DELIVERABLE
	SFY 2015-16	
Project Plan (assumes 2/15/16 contract amendment execution)	2/29/2016	$160,000.00
	SFY 2015-16 TOTAL	$160,000.00
	SFY 2016-17	
Demonstration Year 1 Quality Assurance Test Results Document	As enumerated in the MMP Project Work Plan	$69,246.00
Demonstration Year 1 Ad Hoc MMP Monitoring Report (Analytic Staff – 115 hours x $146.40 per hour)	10/31/2016	$16,836.00
Demonstration Year 1 administrative data measures	12/29/2016	$170,000.00

Demonstration Year 2 Project Plan Update	1/17/2017	$50,000.00
	SFY 2016-17 TOTAL	$306,082.00
SFY 2017-18		
Demonstration Year 2 Quality Assurance Test Results Document	7/31/2017	$69,246.00
Demonstration Year 2 Ad Hoc MMP Monitoring Report (Analytic Staff – 55 hours x $150.80 per hour)	8/31/2017	$8,294.00
Demonstration Year 2 Measures	10/31/2017	$90,000.00
Demonstration Year 3 Project Plan Update	11/15/2017	$25,000.00
Demonstration Year 3 Quality Assurance Test Results Document	4/30/2018	$69,246.00
Demonstration Year 3 Ad Hoc MMP Monitoring Report (Analytic Staff – 55 hours x $150.80 per hour)	5/31/2018	$8,294.00
	SFY 2017-18 TOTAL	$270,080.00
SFY 2018-19		
Demonstration Year 3 Measures	10/31/2018	$75,000.00
	SFY 2018-19 TOTAL	$75,000.00
	MMP PROJECT TOTAL	$811,162.00

47. ACC STAKEHOLDER ENGAGEMENT PLAN

47.1.   Reference Amendment 2-2016: The Contractor shall develop, maintain and provide an ACC Stakeholder Engagement Plan. The ACC Stakeholder Engagement Plan shall include, at a minimum, all of the following:

47.1.1.   Interim and final ACC stakeholder reporting rollout, update and data refresh schedule, including what information will be made available to providers on what date.

47.1.2.   Schedule of onsite visits, including proposed number of visits (both RCCO and PCMP), date range, topic and identified Truven lead(s).

47.1.3.   Presentations by the Analytics Manager on how program performance measures are calculated and by when (including what dashboards and metrics will be available in lieu of PPA).

47.1.4.   Method and frequency for communicating to providers about the Web Portal, including presentations at existing Department-hosted committee meetings/forums (e.g. ACC Program Improvement Advisory Committee).

47.1.5.   Webinar training schedule, including proposed frequency, topics and identified Truven lead(s). This should include both introductory-level material and use case-specific trainings.

47.1.6.   Outline of materials that will be created to support provider engagement (e.g. FAQs, PPTs, recorded trainings, use case written training materials).

47.1.7.   Plan for technical assistance and support, including FTE, hours of operation, etc.

47.1.8.   Requirement Stage: BIDM Implementation Contract Stage II

47.1.8.1.   Deliverable: ACC Stakeholder Engagement Plan

47.1.8.2.   Due Date: One (1) calendar week after the notification of the execution of Contract Amendment 2.

47.1.8.3.   Contractor shall provide to the Department a monthly update on activities performed as required under the ACC Stakeholder Engagement Plan.

47.1.8.3.1.   Deliverable: ACC Stakeholder Engagement Monthly Report

47.1.8.3.2.   Due Date: By the 15th of every calendar month after release of initial Stakeholder Engagement Plan.

48. STAGE III RELEASE SCHEDULE MANAGEMENT PLAN

48.1.   Reference Amendment 2-2016: For the period of July 1, 2016, through December 21, 2017, the Contractor shall develop, maintain and provide the following:

48.1.1.   Updates, on a quarterly basis at a minimum, to the Project Management Plan to outline all BIDM Implementation Contract Stage III and ongoing release dates, version numbers and deliverables contained therein.

48.1.2.   A Stage III Release Schedule Management Plan. The Stage III Release Schedule Management Plan shall be a separate document but a component of the Project Management Plan. The Stage III Release Schedule Management Plan shall include, at a minimum, all of the following:

48.1.2.1.   Identification of and traceability to each individual contract requirement to be completed via the releases specified within the Stage III Release Schedule Management Plan.

48.1.2.2.   Identification of and the delivery schedule for all deliverables, including reference to version (e.g., reports and/or interfaces) to be completed related to each individual contract requirement to be completed via the releases specified within the Stage III Release Schedule Management Plan.

48.1.2.3.   Criteria for what constitutes meeting the requirements of each release upon delivery.

48.1.3.   The Contractor shall update the Stage III Release Schedule Management Plan on a quarterly basis, at a minimum.

48.1.4.   The Contractor shall understand that all deliverables identified in the Stage III Release Schedule Management Plan shall be considered Quarterly Milestones.

48.1.5.   The Contractor shall provide status updates on the deliverables identified in the Stage III Release Schedule Management Plan in the Weekly Project Management Report. For each deliverable, the Contractor shall include, at a minimum, all of the following:

48.1.5.1.   Deliverable name.

48.1.5.2.   Anticipated completion date.

48.1.5.3.   Activities and status pertaining to completion of deliverable. As applicable, include:

48.1.5.3.1.   Identification of the data supplier.

48.1.5.3.2.   The date data is needed by the Contractor.

48.1.5.3.3.   All activity or requirements dependent on the data.

48.1.5.3.4.   Activities and status pertaining to working with each data supplier.

48.1.5.4.   Identification of risks and issues and activities taken by the Contractor and/or the Department to reduce or eliminate each risk and issue.

48.1.6.   The Stage III Release Schedule Management Plan has many deliverables that are dependent on the source data suppliers delivering to the Contractor complete and useable data in the agreed-to formats and with the agreed-to data documentation by the dates shown in the Stage III Release Schedule Management Plan. In the event that data has not been received from a data supplier by the date specified by the Contractor, the Contractor shall contact the Department to renegotiate the anticipated completion date for the impacted deliverable(s) in the Stage III Release Schedule Management Plan. The Contractor shall contact the Department at least sixty (60) calendar days prior to the anticipated completion date to discuss renegotiation of the deliverables, completion dates, and/or payments.

48.1.7.   The Contractor shall utilize the Project Management Plan update process or the Change Management Process, whichever is most appropriate and applicable to the desired modification, to modify and obtain the Department's approval on any changes to deliverables or the delivery schedule of a deliverable. Any changes or modifications shall be initiated by the Contractor and approved by the Department prior to the beginning of the quarter in which the deliverable or contract requirement had been previously scheduled to be completed.

48.1.8.   The Contractor shall follow the deliverable requirements and release due dates as specified in the Stage III Release Schedule Management Plan. The Initial Stage III Release Schedule Management Plan Deliverables Table is in Exhibit C, Section 48.1.8.1.

48.1.8.1.   Initial Stage III Release Schedule Management Plan Deliverables Table

Release Number	Release Due Date	Design (HCPF approves relevant DSD changes)	Build and Release to Test (HCPF approves release to UAT)	Release to Production (HCPF approves release to production)
1.0	**10/31/2016**	• ACC Stakeholder Engagement Plan • T-MSIS • Version 1.2 Reporting • Version 1.2 Interfaces	• Client monthly table/eligibility snapshots • Client attribution reference file • MMA outbound • Version 1.1 Interfaces	• **Federated ODS[0]** • **ODS Reporting Layer[0]** • **Legacy MMIS Cognos reporting[0]** • **Federal reporting[0] (MAR, SUR, CMS reports)** • **Investigative Case Mgmt[0]** • **Version 1.0 Interfaces[0]**
1.1	**12/31/2016**	• Version 1.3 Reporting • Version 1.3 Interfaces	• Version 1.2 Reporting • T-MSIS (PORT) • APCD monthly outbound	• **RCCO/PCMP Interim PPA Reporting [1]** • **ACC Provider Onsite Visits and Presentations completed[1]** • Client attribution reference file • Version 1.1 Interfaces (CIIS, NPPES) • CORHIO ADT data exchange • MMA outbound
1.2	**03/31/2017**	• **Integrated Layer Logical Models & Field Mappings[2]** • **Calculated fields, Rules Engine, MDM requirements[2]** • Version 1.4 Reporting • Version 1.4 Data Mart	• PPA Web Portal • VITAL reporting • Version 1.3 Reporting	• Version 1.2 Reporting • ICM front-end to TCN database • APCD quarterly outbound • Version 1.2 Interfaces (Assessments) • Version 1.2 Reporting
1.3	**6/30/2017**		• **Advantage Suite SIT 1[3]** • Integrated Layer	• VITAL reporting • Version 1.3 Reporting

			• Calculated fields, Rules Engine, MDM requirements • Version 1.4 Reporting • Version 1.4 Data Mart	
1.4	**9/30/2017**		• Version 1.5 Data Marts	• **Advantage Suite[4]** • **PPA Web Portal[4]** • **Cognos BI on top of Integrated Layer framework[4]** • **Calculated fields, Rules Engine, MDM requirements[4]** • **T-MSIS (PORT ready)[4]** • Version 1.4 Reporting • Version 1.4 Data Mart
1.5	**12/31/2017**			• **Version 1.5 Interfaces[5]** • **Version 1.5 Reporting[5]** • **Version 1.5 Data Marts[5]**
[0,1,2,3,4,5] – Deliverables to be invoiced as described in Exhibit E 5.1.2				

48.1.8.1.1.   Deliverable: Stage III Release Schedule Management Plan

48.1.8.1.2.   Due Date: One (1) calendar week after the notification of the execution of Contract Amendment 2 and ongoing updates due at least forty-five (45) calendar days before the beginning of each calendar quarter.

EXHIBIT E, COMPENSATION AND QUALITY MAINTENANCE PAYMENTS – AMENDMENT 2

1. BASE COMPENSATION AND PAYMENTS

1.1.   Compensation

1.1.1.   The Department shall pay the Contractor the following Monthly Contract Stage Payment amounts, as described in this section:

1.1.1.1.   Monthly Contract Stage Payment Table:

Contract Stage	Monthly Contract Stage Payment Amount	Maximum Number of Monthly Payments	One-Time Payment Total Amount	Stage Maximum Payment Amount[1]
BIDM Implementation Contract Stage I – SFY 2014-15	$0.00	2	$1,162,500.00	$1,162,500.00
BIDM Implementation Contract Stage I – SFY 2015-16	$293,279.00	6	$1,727,826.00	$3,487,500.00
BIDM Implementation Contract Stage II – SFY 2014-15	$0.00	2	$1,000,000.00	$1,000,000.00
BIDM Implementation Contract Stage II – SFY 2015-16	$253,437.35	12	$2,981,502.00	$6,022,750.20
July 1, 2016 through December 31, 2017	Quarterly Base Compensation Payments (Exhibit E, Section 6.1.1.)			$9,142,379.34
BIDM Ongoing Operations and Enhancement Contract Stage – Year 2[2]	$932,895.85	6	$0.00	$5,597,375.10
BIDM Ongoing Operations and Enhancement Contract Stage – Year 3	$591,245.60	12	$4,099,803.00	$11,194,750.20
BIDM Ongoing Operations and	$932,895.85	12	$0.00	$11,194,750.20

Enhancement Contract Stage – Year 4				
BIDM Ongoing Operations and Enhancement Contract Stage – Year 5	$932,895.85	12	$0.00	$11,194,750.20
BIDM Ongoing Operations and Enhancement Contract Stage – Year 6	$932,895.85	12	$0.00	$11,194,750.20
[1]Does not include Quality Maintenance Payment, but does include One-Time Payments. [2]Payments begin January 1, 2018 (following completion of Stage III)				

1.1.1.2.   The Department shall make a Monthly Contract Stage Payment to the Contractor for each Contract Stage for each month during that Contract Stage listed in the Monthly Contract Stage Payment Table in Exhibit E, Section 1.1.1.1. If any Stage begins on a day that is not the first day of the month, then for any such month, the Department shall pay the Contractor a prorated portion of the monthly payment equal to the portion of days in the month following the beginning of the stage to the total number of days in that month. If the Department pays a prorated portion of a month at the start of any Contract Stage, then that Contract Stage shall end on a day that is not the end of a month and the final payment for that stage shall be for the remaining monthly amount less the prorated portion already paid at the beginning.

1.1.1.2.1.   In the event that the Contractor completes all requirements for the BIDM Implementation Contract Stage prior to the expected completion date of that stage as shown by the Maximum Number of Monthly Payments column in the table in Section 1.1.1.1., the Department shall continue to make Monthly Contract Stage Payments to the Contractor for that stage until the Stage Maximum Payment Amount for that stage is reached. The Department may, in its sole discretion, choose to continue making monthly payments in such a circumstance or may choose to make one or more lump-sum payments for that stage that includes amounts for multiple future Monthly Contract Stage Payments for that stage.

1.1.1.2.2.   In the event that the Contractor fails to meet all requirements for the BIDM Implementation Contract Stage by the expected completion date of that stage as shown by the Maximum Number of Monthly Payments column in the table in Section 1.1.1.1., the Contractor shall continue to perform all Work related to that stage and shall complete all requirements of that stage, but the Department shall not make any additional payment to the Contractor for that stage. In no event shall the Department make any Monthly Contract Stage payment to the Contractor for a stage that exceeds the Stage Maximum Payment Amount for that stage.

1.1.1.3.   All license fees paid to the Contractor are included in the Monthly Contract Stage Payment Amount described above or in the Stage III Release Schedule Management Plan Deliverables Payment Table. The following table shows the number of available licenses, but the Department shall not make any additional payment for any licenses shown in this table.

1.1.1.3.1.   License Table:

Item #	License Description	License Basis	Number of Licenses
1	IBM Cognos BI Advanced Business Author	Per User	150
2	IBM Cognos BI Enhanced Consumer	Per User	150
3	IBM Cognos BI Professional	Per User	80
4	Informatica B2B	Per Core	8
5	Informatica Data Quality	Per Core	8
6	Informatica MDM	Per Entity	1
7	Informatica Lab License	Per Core	8
8	Informatica PowerCenter For Rules Engine Functionality, up to 80 authorized users will have the ability to *view* rules-based data transformation logic, and up to 5 users will have the ability to *develop* rules. The Informatica PowerCenter Data Masking Option for data suppression shall be available to up to 80 authorized users.	Per Core	8
9	MOVEit DMZ Enterprise for encrypting outgoing data	Per Core	4
10	Esri ArcGIS for Desktop	Per Core	10
11	Splunk for Central Audit Logging	Per Server	2
12	Oracle Audit Vault & Database Firewall	Per Core	1
13a	SAS Visual Analytics SAS Fraud Framework for Healthcare SAS Enterprise Case Management for Healthcare The SAS licenses purchased in this bundle provide access to specific software components by a maximum number of authorized users as follows: SAS Visual Analytics –150 users SAS Advanced Analytics – 80 users SAS Enterprise Miner – 80 users SAS Text Miner – 80 users SAS Forecast Server – 80 users SAS Model Manager – 80 users SAS Bridge to ESRI – 80 users SAS/STAT – 80 users SAS/ETS – 80 users SAS ECM – 50 users	Per Core	48 (Three 16-core non-distributed environments)

Item #	License Description	License Basis	Number of Licenses
13b	SAS Grid Metric bundle, for efficient management of the SAS environments: - SAS Grid Manager - Base SAS for Grid - SAS/CONNECT for Grid	Per Core	48 Cores
14	IBM i2 Information Exchange Visualizer IBM i2 Analyst's Notebook	Per Seat	10
15	IBM InfoSphere DataStage Orchestrate	Per Server	1
16	Microsoft SQL Server	Per Server	2
17a	Truven Health Advantage Suite Advantage Suite Ad Hoc Report Writer shall be accessible by up to 150 authorized users.	By Size of Entity, as measured by Total Members	Up to 1,316,083 Members
17b	Truven Health Medical Episodes Grouper (MEG), as delivered in Advantage Suite	By Size of Entity, as measured by Total Members	Up to 1,316,083 Members
17c	Verisk Health DxCGs All-Encounter Model, as delivered in Advantage Suite	By Size of Entity, as measured by Total Members	Up to 1,316,083 Members
17d	Verisk Health DxCGs RxGroups Model, as delivered in Advantage Suite	By Size of Entity, as measured by Total Members	Up to 1,316,083 Members
17e	Verisk Health DxCGs Likelihood of Hospitalization Model, as delivered in Advantage Suite	By Size of Entity, as measured by Total Members	Up to 1,316,083 Members
18	Truven Health Physician Performance Assessment (PPA), a module of Advantage Suite	By Number of Physician Users	Up to 1,000
19	Truven Data Warehouse Core Model	Per Entity	1
20	Truven Data Warehouse Core Transformation	Per Entity	1
21	Truven Data Warehouse Core Quality Reports	Per Entity	1
22	Truven Data Warehouse Core Reconciliation	Per Entity	1
23a	Dell/Quest TOAD Data Point Professional Edition	Per User	75
23b	Dell/Quest TOAD for Oracle Professional Edition	Per User	5
24	DRUGDEX, beginning November 15, 2015	Per Core	1

Item #	License Description	License Basis	Number of Licenses
	Up to 5 authorized users will have access to DRUGDEX		
25	Micromedex Clinical Knowledge Suite Free Trial, until June 30, 2016	Per Entity	1
26	Tableau Desktop – Professional User – License	Per User	15
27	Tableau Desktop – Professional User – Maintenance (the Department owns 23 licenses currently. Maintenance through BIDM contract starts May 2017)	Per User	38
28	Tableau Server – Core Enterprise License Server – Core Enterprise Maintenance	Per User	8

1.1.1.3.1.1.   For the purposes of this License Table, the license basis descriptions shall be interpreted as follows:

1.1.1.3.1.1.1.   Per User – A licensing metric that is measured based on the number of unique named users.

1.1.1.3.1.1.2.   Per Entity – A licensing metric that is measured based on the unique entity receiving the license, regardless of the number of individual users within that entity.

1.1.1.3.1.1.3.   Per Core – A licensing metric that is measured based on the number of individual computational units, or processors, of a computer or server, which read instructions to perform actions related to the license. A core may be physically part of the system in a single or multiple core configuration or may be a virtual core.

1.1.1.3.1.1.4.   Per Server – A licensing metric that is measured based on the number of physical or virtual instances running the application. An instance includes all computer cores, storage, memory, network connectivity and operating system.

1.1.1.3.1.1.5.   Per Seat – A licensing metric that is measured based on the number of unique workstations with that license. In cases where individual users have their own workstations, this may be counted in the same way as Per User licenses.

1.1.1.3.1.1.6.   By Size of Entity, as measured by Total Members – A licensing metric that is measured based on the size of the unique entity to which the license applies.

1.1.1.3.1.1.7.   By Number of Physician Users – A licensing metric that is measured based on the unique named Providers who are users.

1.1.1.3.2.   Not included in the Contractor's licensing to the State are the following applications:

1.1.1.3.2.1.   Truven DataProbe System, a data investigation tool Contractor will use for database management functions.

1.1.1.3.2.2.   Microsoft SharePoint, a collaborative work environment that Contractor will use to manage the project.

| 1.1.1.3.2.3. | Oracle Exadata for data storage and management. |

1.1.1.3.2.3.   Oracle Exadata for data storage and management.

1.1.1.3.2.4.   Oracle Transparent Data Encryption (TDE) for advanced security.

1.1.1.3.2.5.   Oracle Advanced Security for encryption of data traversing internally via the Truven network and the database.

1.1.1.3.2.6.   Oracle Enterprise Manager (OEM) to keep the data warehouse running optimally.

1.1.1.3.2.7.   Various system administration systems, security administration systems, environment management systems, and data management systems that Contractor uses to manage data and systems for multiple customers whose solutions are hosted in Contractor's data centers.

1.1.1.3.3.   The Contractor shall provide all licenses described in the License Table in Section 1.1.1.3.1.

1.1.1.3.3.1.   In the event that the name of a license contained in the License Table changes, but otherwise contains the same functionality, the Parties may agree to use that new name through a transmittal without a formal amendment to this Contract.

1.1.1.3.4.   In the event that the Contractor requires additional licenses for its own staff to meet any requirement listed in this Contract, the Contractor shall provide all such licenses necessary to meet the requirements of this Contract at no additional cost to the Department. This shall not apply to additional licenses required for Department staff use or required based on incorrect information provided by the Department. This shall also not apply to additional licenses needed as a result of the addition of requirements through an amendment to this Contract, and the need for all such additional licenses resulting from requirements added through an amendment shall be negotiated as a part of that amendment.

1.1.1.3.4.1.   In the event that additional or new licenses are required for Department staff use, are required based on incorrect information provided by the Department or are needed as a result of the addition of requirements through an amendment to this Contract, the Contractor shall provide those licenses to the Department at a cost that does not exceed the Contractor's cost to acquire the license, plus an administrative cost of ten percent (10%) of the cost of the license.

1.1.1.4.   The Contractor shall break out payment components on its invoice as directed by the Department and to provide information necessary for the Department to get enhanced federal funding.

1.1.2.   One-Time Payments

1.1.2.1.   The Department shall make the following One-Time Payments to the Contractor as described in this section:

1.1.2.1.1.   One-Time Payment Table

Payment Amount	Associated Contract Stage	Payment Due Date
$1,162,500.00	BIDM Implementation Contract Stage I	June, 2015
$1,727,826.00	BIDM Implementation Contract Stage I	July, 2015
$1,000,000.00	BIDM Implementation Contract Stage II	June, 2015

$192,903.00	BIDM Implementation Contract Stage II	July, 2015
$192,903.00	BIDM Implementation Contract Stage II	August, 2015
$192,903.00	BIDM Implementation Contract Stage II	September, 2015
$192,903.00	BIDM Implementation Contract Stage II	October, 2015
$192,903.00	BIDM Implementation Contract Stage II	November, 2015
$192,903.00	BIDM Implementation Contract Stage II	December, 2015
$1,824,084.00	BIDM Implementation Contract Stage II	January, 2016
$4,099,803.00	BIDM Ongoing Operations and Enhancement Contract Stage – Year 3	July, 2018

1.1.2.1.2.   The Contractor shall invoice all One-Time Payments in the month following the payment due date for that One-Time Payment shown in the table above.

1.1.3.   Enhancement Projects

1.1.3.1.   Enhancement Project Rate Table

Enhancement Project Position	Base Hourly Rate
Analytics Staff	$138.00
Operations Staff	$116.00
System/Interface Staff	$138.00
Testing and Validation Staff	$98.00
Business Analyst Staff	$116.00
Technical Writing and System Documentation Staff	$88.00
Project Management Staff	$138.00
Administrative Support Staff	$76.00

1.1.3.2.   The Department shall pay the contractor for each Enhancement project for the hours described in the Department-approved requirements for that Enhancement project.

1.1.3.3.   All Enhancement project hours shall be paid based on the rates as follows:

1.1.3.3.1.   The base hourly rates shown in the Enhancement Project Rate Table above are valid for SFY 2014-15.

1.1.3.3.2.   For each SFY after SFY 2014-15, the base hourly rate shall increase by three percent (3%) per SFY.

1.1.3.4.   The Base Hourly Rate shall apply to hours actually expended directly on the Enhancement project work, as accounted for by the Contractor.

1.1.4.   Multistate Initiatives

1.1.4.1.   The Contractor shall review new BIDM capabilities implemented for other states with the Department for potential inclusion in the Colorado BIDM. The Contractor shall provide an estimate for implementing capabilities from other states into the Colorado BIDM as requested by the Department. If required, the Department will obtain agreement from the affected state.

1.1.4.2. If the Department decides to participate in a multi-state collaborative BIDM development initiative, the Department may have to pay a fee representing its share of the common development expenses. The Contractor shall then provide an estimate for implementing the collaborative-sponsored capability into the Colorado BIDM as requested by the Department.

2. QUALITY MAINTENANCE PAYMENTS & PERFORMANCE STANDARDS

2.1.1. The Department shall pay the Contractor the following Quality Maintenance Payments (QMPs), as described in this section:

2.1.1.1. One-Time DDI QMPs

2.1.1.1.1. One-Time DDI QMP Table

DDI QMP Name	DDI QMP Amount
BIDM Implementation Contract Stage I QMP	$350,000.00
BIDM Implementation Contract Stage II QMP	$400,000.00
CMS Certification QMP	$300,000.00

2.1.1.1.2. The Contractor may earn the amounts shown in the One-Time DDI QMP Table as follows:

2.1.1.1.2.1. DDI QMP Release Criteria

Contract Stage	QMP Release Criteria
BIDM Implementation Contract Stage I	Department releases QMP after Department has accepted all deliverables and determined the Contractor has meet all requirements for the BIDM Implementation Contract Stage I.
BIDM Implementation Contract Stage II	Department releases QMP after Department has accepted all deliverables and determined the Contractor has meet all requirements for the BIDM Implementation Contract Stage II.
CMS Certification Project Phase	Department releases QMP following receipt of official CMS certification of the BIDM.

2.1.1.1.3. The Department shall pay the Contractor all One-Time DDI QMPs once those QMPs are earned by the Contractor. Once the Department has determined that the Contractor has earned a QMP, the Department will provide the Contractor with Authorization to invoice for that QMP.

2.1.1.1.4. If the Contractor believes that the Contractor is not at fault for a delay that results in the Department not making the payment of any One-Time DDI QMP, other than the CMS Certification QMP, then the Contractor may dispute the Department's decision through the Dispute Process. The Dispute Process related to the non-payment of a QMP shall not begin until at least sixty (60) Business Days have passed from when the Contractor has notified the Department in writing that the Contractor believes the delay in paying the QMP is because of circumstances beyond the Contractor's control.

2.1.1.1.4.1. The CMS Certification QMP shall only be made by the Department after the Department has officially received certification of the BIDM from CMS, regardless of any delay in receiving certification. The Contractor shall not dispute the Department's decision to not pay the CMS Certification QMP prior to the

Department's official receipt of CMS's certification of the BIDM. The Department expects that the CMS Certification QMP will be paid in SFY 2016-17, but in the event that a delay in CMS's certification of the BIDM would result in the payment of that QMP being made in a later SFY, the Parties will amend the Contract accordingly.

2.1.1.2. Quality Maintenance Payment—BIDM Ongoing Operations and Enhancements Contract Stages

2.1.1.2.1. The Contractor may earn an Ongoing Operations QMP for an applicable time period for each performance standard listed in the Ongoing Operations QMP Tables shown below that the Contractor meets or exceeds all components of during that time period. If the Contractor fails to meet or exceed a performance standard, or any component of a performance standard, listed in the Ongoing Operations QMP Tables during a time period, then the Contractor shall not earn an Ongoing Operations QMP for that performance standard for that time period.

2.1.1.2.1.1. If the Ongoing Operations QMP is for a monthly performance standard, as shown in the Ongoing Operations QMP Tables below, then the Contractor may only earn the Ongoing Operations QMP for that month if the Contractor meets or exceeds all components of that performance standards during the month. The Contractor may only earn an Ongoing Operations QMP for a monthly performance for each full month in which the Contractor meets or exceeds all components of that performance standards during the month.

2.1.1.2.1.2. If the Ongoing Operations QMP is for a quarterly performance standard, as shown in the Ongoing Operations QMP Tables below, then the Contractor may only earn the Ongoing Operations QMP for that quarter if the Contractor meets or exceeds all components of that performance standards during the quarter. All quarters for the purposes of Ongoing Operations QMPs shall be the same as calendar quarters. In the event that any Ongoing Operations and Enhancement Contract Stage year begins on a day that is not the beginning of a calendar quarter, then the Contractor shall only be paid an Ongoing Operations QMP for each full quarter in which the Contractor met or exceeded all components of that performance standard during the quarter.

2.1.1.2.1.3. If the Ongoing Operations QMP is for a semiannual performance standard, as shown in the Ongoing Operations QMP Tables below, then the Contractor may only earn the Ongoing Operations QMP for that semiannual period if the Contractor meets or exceeds all components of that performance standards during the semiannual period. The first semiannual period shall begin in July and last six (6) months until the end of December of a SFY. The second semiannual period shall begin in January and last six (6) months until the end of June of that SFY. In the event that any Ongoing Operations and Enhancement Contract Stage year begins on a day that is not the beginning of a semiannual period, then the Contractor shall only be paid an Ongoing Operations QMP for each full semi-annual period in which the Contractor met or exceeded all components of that performance standard during the semi-annual period.

2.1.1.2.1.4. If the Ongoing Operations QMP is for an annual performance standard, as shown in the Ongoing Operations QMP Tables below, then the Contractor may only earn the Ongoing Operations QMP for that annual period if the Contractor meets or exceeds all components of that performance standards during the annual period. Each annual

period shall be the same as a SFY, but in the event that any Ongoing Operations and Enhancement Contract Stage year begins on a day that is not the beginning of a SFY or ends on a day that is not the end of an SFY, then the Contractor shall be paid the full amount for any earned Ongoing Operations QMPs completed during that Annual Period.

2.1.1.2.2. An Ongoing Operations QMP shall be applied to all of the performance standards and requirements listed in this section. Some of these performance standards may duplicate performance standards contained in Exhibit G. For each standard from Exhibit G that duplicates a standard in Exhibit E, the Contractor shall apply the standard in Exhibit G with the associated requirement in Exhibit C as part of its compliance with the performance standard in this section in order to earn a QMP for that performance standard.

2.1.1.2.3. During the first one-hundred and eighty (180) calendar days of the first year of the BIDM Ongoing Operations and Enhancement Contract Stage, the Department may make a QMP for a performance standard, even if the Contractor has not met the performance standard for that QMP, at the Department's discretion.

2.1.1.2.4. The following table shows the Ongoing Operations QMP allocation to each of the performance standards. The Contractor shall earn the listed Ongoing Operations QMP for a performance standard for each month during any annual BIDM Ongoing Operations and Enhancement Contract Stage that the Contractor meets or exceeds that performance standard.

2.1.1.2.4.1. The Contractor may only earn the QMP for each performance standard once during a specified time period, and in no event shall the total of all QMPs for a time period exceed the QMP total shown in the following table for the BIDM Ongoing Operations and Enhancement Contract Stage Year in which the time period occurs:

2.1.1.2.4.1.1.   Monthly Ongoing Operations QMP Performance Standards Table

Performance Standard	BIDM Ongoing Operations and Enhancement Contract Stage – Year 1 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 2 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 3 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 4 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 5 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 6 QMP
Help Desk Performance Standard: Help Desk Performance Standard applies only to user help requests that are submitted to Contractor's corporate Customer Support Center via toll-free telephone call, email or web site log in. *Component 1*: Call wait times in the call center were less than or equal to one (1) minute per every fifteen (15) calls received per hour at all times during the month. *Component 2*: No more than five percent (5%), per every fifteen (15) calls received per hour, were abandoned during the month.	$5,403.22	$5,403.24	$5,403.24	$5,403.24	$5,403.24	$3,079.85
Help Ticket Performance Standard *Component 1*: All Priority Level 1 tickets were responded to within thirty (30) minutes and were either resolved or escalated to project development and management within four (4) business hours. Priority Level 1 tickets are defined as those where the user is experiencing a condition that disables use of or access to the BIDM, no workaround is available, and an immediate solution is required. *Component 2*: All Priority Level 2 tickets were responded to within sixty (60) minutes and were either resolved or escalated to project development and management within eight (8) business hours. Priority Level 2 tickets are defined as those where the user	$5,403.22	$5,403.24	$5,403.24	$5,403.24	$5,403.24	$3,079.85

is experiencing a condition that frequently disrupts or limits use of the BIDM, no reasonable workaround is available, and an immediate solution is required. *Component 3*: All Priority Level 3 tickets were responded to within one (1) Business Day and were either resolved or escalated to project development and management within three (3) Business Days. Priority Level 3 tickets are defined as those where overall production is operational with no major impact on the Department's business operation, functionality differs from the intended design, or help is needed to answer non-critical issues, and a reasonable workaround is available, or an immediate solution is not required. *Component 4*: All Priority Level 4 tickets were responded to within two (2) Business Days and were either resolved or escalated to project development and management within five (5) Business Days. Priority Level 4 tickets are defined as requests for information or new BIDM features, or issues that do not regularly occur.						
Total of all Monthly QMPs	$10,806.44	$10,806.48	$10,806.48	$10,806.48	$10,806.48	$6,159.70

2.1.1.2.4.1.2.   Quarterly Ongoing Operations QMP Performance Standards Table

Performance Standard	BIDM Ongoing Operations and Enhancement Contract Stage – Year 1 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 2 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 3 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 4 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 5 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 6 QMP
System Performance Standard: *Component 1*: Components related to the number of concurrent users that can access the System, System Tools, and the BIDM Web Portal measured by system availability and response time to be added by a Contract amendment once system development is further defined.	$26,486.88	$19,864.86	$19,864.86	$19,864.86	$19,864.86	$11,322.97
Refresh Rate Standard: Component 1: Components related to data refresh rate required to meet this standard to be added by a Contract amendment once system development is further defined.	$26,486.88	$19,864.86	$19,864.86	$19,864.86	$19,864.86	$11,322.97
Total of all Quarterly QMPs	**$52,973.76**	**$39,729.72**	**$39,729.72**	**$39,729.72**	**$39,729.72**	**$22,645.94**

2.1.1.2.4.1.3.   Semiannual Ongoing Operations QMP Performance Standards Table

Performance Standard	BIDM Ongoing Operations and Enhancement Contract Stage – Year 1 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 2 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 3 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 4 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 5 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 6 QMP
Business Continuity / Disaster Recovery Performance Standard: *Component 1*: A current and approved Business Continuity / Disaster Recovery Plan was in place at all times during the semiannual period. *Component 2*: The Contractor provided recommended updates during the semiannual period – OR– the Contractor reported	$83,382.11	$62,469.12	$62,469.12	$62,469.12	$62,469.12	$35,607.40

that no updates were necessary during the period. *Component 3*: Because the BIDM is not a mission critical service as defined by the Department and OIT, all core services were recovered within five (5) days and data was restored within twenty-four (24) hours of the last known good production state after the declaration of a production disaster during the semiannual period –OR– there was no declaration of a production disaster during the semiannual period.						
Training Performance Standard *Component 1:* All Training programs delivered by Contractor for Department BIDM users Level II (Business Users) or III (Advanced Users): Contractor's training program received an average score of at least 3.5 on a scale of 1-5 where "5" is "Excellent", "4" is "Good, and "3" is Satisfactory", on an opinion survey of all trainees following their training class, based on the scores of the trainees that completed the class, and averaged across all classes and survey responses. *Component 2:* All Training programs delivered by Contractor for Department BIDM users Level I (Least skilled): Contractor's training program received an average score of at least 3.5 on a scale of 1-5 where "5" is "Excellent", "4" is "Good, and "3" is Satisfactory", on an opinion survey of all trainees following their training class, based on the scores of the trainees that completed the class, and averaged across all classes and survey responses. *Component 3:* All Training programs delivered by	$42,057.03	$31,610.88	$31,610.88	$31,610.88	$31,610.88	$18,018.20

Contractor for BIDM Web Portal Users (i.e., Providers, RCCOs, and other authorized users not employed by the Department): Contractor's training program received an average score of at least 3.5 on a scale of 1-5 where "5" is "Excellent", "4" is "Good, and "3" is Satisfactory", on an opinion survey of all trainees following their training class, based on the scores of the trainees that completed the class, and averaged across all classes and survey responses.	

Total of all Semiannual QMPs	$125,439.14	$94,080.00	$94,080.00	$94,080.00	$94,080.00	$53,625.60

2.1.1.2.4.1.4.   Annual Ongoing Operations QMP Performance Standards Table

Performance Standard	BIDM Ongoing Operations and Enhancement Contract Stage – Year 1 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 2 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 3 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 4 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 5 QMP	BIDM Ongoing Operations and Enhancement Contract Stage – Year 6 QMP
Staff Retention Performance Standard: *Component 1*: All Key Personnel vacancies were filled within sixty (60) calendar days during the year –OR– no Key Personnel vacancies occurred during the year. *Component 2*: All Key Personnel had a performance evaluation performed by the Contractor that incorporated input provided by the Department during the year and all evaluations were documented. *Component 3*: All Key Personnel were dedicated to this Contract full time, unless otherwise noted in Exhibit C, Requirements, as documented by the Contractor's time keeping system.	$31,783.61	$47,675.73	$47,675.73	$47,675.73	$47,675.73	$27,175.17

MITA Performance Standard: *Component* 1: Component related to maintaining and improving the BIDM functionality associated with BIDM system requirements, Exhibit C, Sections 9.0 through 22.0, required to meet this standard to be added by a Contract amendment once system development is further defined. *Component* 2: Component related to maintaining and improving the BIDM functionality associated with BIDM data management and System Tools, Exhibit C, Sections 23.0 through 32.0, required to meet this standard to be added by a Contract amendment once system development is further defined. *Component* 3: Component related to maintaining and improving the BIDM functionality associated with BIDM operations requirements, Exhibit C, Sections 33.0 through 42.0, required to meet this standard to be added by a Contract amendment once system development is further defined.	$31,783.61	$47,675.73	$47,675.73	$47,675.73	$47,675.73	$27,175.17
System Turnover Plan Update Performance Standard *Component 1*: The System Turnover plan was updated during the year, as documented by the version date on the most recently approved plan.	$10,594.60	$15,891.90	$15,891.90	$15,891.90	$15,891.90	$9,058.38
Turnover Performance Standard *Component 1*: All requirements of the most recently approved System Turnover Plan were completed.	$0.00	$0.00	$0.00	$0.00	$0.00	$252,839.92
Total of all Annual QMPs	**$74,161.82**	**$111,243.36**	**$111,243.36**	**$111,243.36**	**$111,243.36**	**$316,248.64**

2.1.1.2.4.1.5.   As mutually agreed by the Parties, any performance standards, component of a performance standard or measurement method for any performance standard listed in this table may be clarified through the use of a Transmittal. The parties may not use a Transmittal to modify the amounts of any QMP or add, modify or delete any performance standard contained herein.

3. CLARIFICATIONS

3.1.   Calculations to determine if a QMP was earned shall not include:

3.1.1.   Any failure to meet a performance standard that was caused by an event of Force Majeure as defined in Section 20.D, Force Majeure;

3.1.2.   Any failure to meet a performance standard that was caused by a planned interruption where the Department has received prior notification; or

3.1.3.   Any failure to meet a performance standard that could have been prevented through execution of a written proposal by the Contractor that was not implemented at the request of the State.

3.2.   Where time measurement is required in a performance standard, the duration shall be measured from the time the Contractor knows or should know of the issue that caused the time measurement to be required through the time the Department receives notification of resolution. The calculation of any duration shall not include:

3.2.1.   Time period(s) where the Contractor does not have access to a physical State location where access is necessary for problem identification and resolution; or

3.2.2.   Time period(s) where the Contractor is unable to obtain necessary information from the State.

3.3.   For all calculations related to QMPs, all decimals shall be rounded to two decimal places, with five and greater rounding up and four and less rounding down, unless otherwise specified.

3.4.   The QMP percentage shall only be applied to a single QMP standard during any reporting period. Performance standards shall be measured in the specified reporting period and treated as pass/fail when calculated for QMP application.

3.5.   QMP standards shall not be invoked for any other instance where other liquidated damages would apply.

4. PERFORMANCE STANDARD REPORTING—QMP

4.1.   Each month, the Contractor shall consolidate the review findings for the QMP-related performance standards into a single report, the QMP Response Summary Report, for each QMP that may be earned as of that month. This report shall list each standard and each component of a standard, with a corresponding reference number, an indicator showing the results category and the associated total QMP amount that will be invoiced.

4.2.   The following are the four results categories that will be used in the QMP Response Summary Report:

4.2.1.   Met-Yes—The criteria for this standard or component were met for the reporting period and deemed Billable/Pass.

4.2.2.   Met-No—The criteria for this standard or component were not met for the reporting period and deemed Not Billable/Fail.

4.2.3.   N/A—This standard or component was not relevant for the reporting period and, therefore, was not measured and deemed Billable. No DRA event occurred during the reporting period.

4.2.4.   Waived—The Department agreed to waive the application for this standard or component during the reporting period because of extenuating circumstances and deemed Billable.

4.3.   The Contractor shall attach the QMP Response Summary Report to the monthly invoice as documentation to support the amount of QMP claimed.

4.3.1.   In addition to the QMP Response Summary Report, the Contractor shall provide necessary data, information or access for the Department to verify the information provided in the QMP Response Summary Report or the Contractor's invoice.

5. STAGE III RELEASE SCHEDULE MANAGEMENT PLAN PAYMENTS

5.1.   Reference Amendment 2-2016: For the period of July 1, 2016, through December 31, 2017, the Contractor shall complete all requirements and deliverables designated as BIDM Implementation Contract Stage III as specified within the Contract and any amendments, as applicable. In addition to the one-time DDI QMP payment for CMS Certification (Exhibit E, 2.1.1.1.1.), payments for this performance period will be made as stated in Exhibit E, Section 5.1.2. Detailed deliverable requirements traceability shall be contained in the Stage III Release Schedule Management Plan (Exhibit C, Section 48).

5.1.1.   Upon delivering the complete release schedule deliverables listed below (as specified in the Release Schedule Management Plan), Contractor shall invoice Department for the payment associated with each deliverable(s). Contractor may invoice for these amounts in addition to any other monthly, quarterly, or annual contract invoices.

5.1.2.   Release Schedule Management Plan Deliverables Payment Table

Release Schedule Management Plan Deliverables	Payment Amount	Anticipated Fiscal Year
• ACC Stakeholder Engagement Onsite Visits and Presentations	$401,294.00	FY 16-17
• RCCO/PCMP Interim PPA Reporting	$401,294.00	FY 16-17
• Integrated Layer Logical Models & Field Mappings (DSD updates only) • Calculated fields, Rules Engine, MDM requirements (DSD updates only)	$519,803.00	FY 16-17
• Advantage Suite System Integration Testing 1 (released to UAT only)	$503,355.00	FY 16-17
• Advantage Suite • Physician Performance Assessment (PPA) Web Portal • COGNOS BI on top of Integrated Layer Framework • Calculated Fields/Rules Engine • Informatica Master Data Management (MDM) • T-MSIS (PORT ready)	$6,900,000.00	FY 17-18
• Version 1.5 Interfaces • Version 1.5 Reporting • Version 1.5 Data Marts	$2,500,000.00	FY 17-18
TOTAL	$11,225,746.00	

6. QUARTERLY BASE COMPENSATION PAYMENTS

6.1.   Reference Amendment 2-2016: After the Department has accepted BIDM Implementation Contract Stage II as complete and for the period of July 1, 2016 through December 31, 2017, the Department will pay the Contractor quarterly base compensation payments as stated in Exhibit E, Section 6.1.1.

6.1.1.   Quarterly Stage III Release Schedule Management Plan Base Compensation Payment Table

Quarter End Date	Payment Amount
December 31, 2016	$1,026,185.44
March 31, 2017	$1,399,343.78
June 30, 2017	$1,819,146.95
September 30, 2017	$2,238,950.00
December 31, 2017	$2,658,753.17
TOTAL	$9,142,379.34